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BIRDSNESTING.

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BIRDSNESTING:

BEING

A COMPLETE DESCRIPTION

OF THE

NESTS AND EGGS

OF

BIRDS WHICH BREED IN GREAT BRITAIN AND IRELAND.

BY EDWARD NEWMAN,

AUTHOR OF 'THE INSECT HUNTERS,' 'A FAMILIAR INTRODUCTION TO THE HISTORY OF INSECTS,' 'A HISTORY OF BRITISH FERNS,' ETC., ETC.

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Nest of the Longtailed Tit.

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1861.

PRICE ONE SHILLING.

Connubial leagues agreed, to the deep woods
They haste away, all as their fancy leads,
Pleasure, or food, or secret safety prompts;
That Nature's great command may be obey'd;
Nor all the sweet sensations they perceive
Indulged in vain. Some to the holly hedge
Nesting repair, and to the thicket some;
Some to the rude protection of the thorn
Commit their feeble offspring. The cleft tree
Offers its kind concealment to a few,
Their food its insects, and its moss their nests;
Others, apart far in the grassy dale,
Or roughening waste their humble texture weave.
But most in woodland solitudes delight,
In unfrequented glooms, or shaggy banks,
Steep, and divided by a babbling brook,
Whose murmurs soothe them all the livelong day,
When by kind duty fix'd. Among the roots
Of hazel, pendant o'er the pensive stream,
They frame the first foundation of their domes;
Dry sprigs of trees, in artful fabric laid,
And bound with clay together. Now 'tis nought
But restless hurry through the busy air,
Beat by unnumbered wings. The swallow sweeps
The slimy pool, to build his hanging house
Intent. And often, from the careless back
Of herds and flocks, a thousand tugging bills
Pluck hair and wool; and oft, when unobserved,
Steal from the barn a straw; till soft and warm,
Clean and complete, their habitation grows.

THOMSON'S SEASONS.

PREFACE.

In preparing these notes for the press I have kept one object constantly in view, and that is utility: it is a very difficult task entirely to exclude the ornamental, whilst carefully retaining all that is useful, especially on such a subject as birdsnesting, where the more mention of a name often calls up a host of recollections that require nothing more than a little word-painting to render them attractive to every reader. But this difficult and self-denying task I have achieved, in the belief that the better class of schoolboys who will make this little book the companion of their half-holiday rambles, will open it for information only. The limp cloth cover will then last a very long time, and the book may be bent in any manner without receiving the slightest injury; but I particularly recommend that it should be folded lengthwise, and that a breast-pocket should be made in the jacket, on the left side purposely to receive it.

With regard to classification, we have at present no systematic list of British birds that makes any pretensions to a natural arrangement; indeed, I believe the plan usually followed, and variously called the Quinarian, artificial, or Vigorsian method, is the worst that could be invented, since it is at direct variance with habits, manners, economy and physiology: this arises from the fact that its inventor paid little or no attention to the living bird; but, shut up among dried and shrivelled skins, worked out their classification with rule and compasses, exactly as he would a problem of Euclid. This will explain to you why the dove, which is always on the wing, is placed next to the pheasant, that is always on the ground; why the plovers and sandpipers, which are alike in appearance, which lay four eggs of a remarkable shape, beautifully coloured, and carefully arranged, with their small ends together, in a depression in the ground, without taking the trouble to make a nest; why these are separated from each other by the herons, which build enormous nests in trees and lay pale blue or white and unspotted eggs. I merely allude to this subject, because directly you begin to understand the nests and eggs of our English birds you will doubtless wonder at the manner in which the species succeed each other in the following list, which is strictly artificial, and is only followed by me because previously adopted by Mr. Yarrell, the author of the most complete work on British birds.

In many birds the range of variation in the colour of the eggs is so great that it is difficult to give any definition which shall be sufficiently

comprehensive to include them all; in such cases I have only noticed the more remarkable varieties, as in the tree pipit; the nest of this bird, as well as that of its congener, the meadow pipit, are built on the ground, and the two species use very nearly the same materials: the birds themselves are also nearly alike, and both are familiarly known by the name of "Titlark;" so that, even after taking infinite pains, it is difficult to avoid confusion in naming the eggs of these two birds; the eggs of the meadow pipit, however, vary but little. Again, in two closely allied species, the guillemot and Brunnich's guillemot, the diversity of colour appears almost endless, and each bird produces the same variations, or nearly so.

On the subject of authority great care should be taken not to place implicit credence in any author's descriptions: almost every author has committed grave errors: for instance, Mr. Selby describes the nest of the sedge warbler as suspended between reeds in the same manner as that of the reed wren; Mr. Yarrell says it seldom depends on reeds for support; Mr. Hewitson says it is occasionally found among reeds, like that of the reed wren, but in a less elevated position: thus the first of these accomplished authors makes a very great mistake, to which the second and third only give a modified correction: the bird rarely frequents reeds, and never suspends its nest amongst them.

On this and all questions of doubt or difficulty I have had the great advantage of the constant assistance of Mr. Bond and Mr. Doubleday, than whom this country has never produced more accomplished ornithologists or gentlemen who practically understand our British birds so well. To these gentlemen I am indebted for a few additional corrections, with which I have been favoured since the following pages have passed through the press.

Having directed my reader to the nests in their natural localities, and instructed him how to find and how to distinguish them, a very important subject yet remains. It is necessary to know how to treat the eggs when once they have been acquired: for this purpose I must refer to Mr. Newton's admirable 'Suggestions for forming a Collection of Birds' Eggs,' without which it appears to me almost impossible to acquire and preserve a collection with that system and good order which will alone render it really valuable.

In conclusion, I would particularly recommend that in every case where it is practicable the nest as well as the eggs should be preserved. I use the expression "practicable," because I am well aware that the nests of our larger birds can only be preserved where there is no restriction on the score of space; but among our smaller birds no such objection exists, and nothing is more easy than to preserve these lasting monuments of "instinctive genius."

BIRDS' NESTS AND BIRDS' EGGS.

"It wins my admiration
To view the structure of that little work,
A bird's nest. Mark it well, within, without;
No tool had he that wrought, no knife to cut;
No nail to fix; no bodkin to insert;
No glue to join; his little beak was all,
And yet how neatly finished! What nice hand
With every implement and means of art,
And twenty years' apprenticeship to boot,
Could make me such another? Fondly then
We boast of excellence whose noblest skill
Instinctive genius shames."

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ALTERATIONS AND ADDITIONS

MOST OBLIGINGLY SUGGESTED BY FREDERICK BOND, ESQ., OF KINGSBURY, AND HENRY DOUBLEDAY, ESQ., OF EPPING.

In these memoranda the reader will observe that the word *add* signifies that the following paragraph is an addition to the text: where the word *add* does not occur, the new paragraph is to be substituted for the old one.

SPARROWHAWK, p. 6.

Eggs, 4—6. Blueish white, with red-brown blotches.

BARN OWL, p. 8.

Add. The colour of the egg is omitted: it is white and unspotted.

SPOTTED FLYCATCHER, p. 8.

Eggs, 4, 5. Gray-white, with pale raw sienna spots; rarely pale blue, unspotted.

MISSEL THRUSH, p. 10.

Add. Mr. Bond thinks the missel thrush sometimes uses mud; neither Mr. Doubleday nor I have ever found this to be the case.

RING OUZEL, p. 11.

Add. This bird also occasionally uses mud; and the word "only," in describing the situation, should stand "principally," as there are well-authenticated instances of its nesting in the south.

WHINCHAT, p. 12.

Eggs, 5, 6. Delicate blue-green; rarely with fine red-brown specks.

WHEATEAR, p. 12.

Situation. In the chinks of stone walls or under stones on moors and mountain wilds, and in old rabbit-burrows.

Eggs, 5, 6. Pale green; rarely spotted at the larger end.

REED WREN, p. 15.

Materials. Dried grass, moss and wool, as well as the dried flowering scapes of the reed.

Blue Titmouse, p. 17.

Eggs, 7—9. White, spotted with red-brown; more numerous at the larger end.

Ray's Wagtail, p. 19.

Eggs, 4, 5. Pale umber-brown, sometimes with two or three dots or streaks at the larger end.

Meadow Pipit, p. 20. *Anthus pratensis.*

Common Bunting, p. 20.

Eggs, 4—6. Gray, tinged with yellow, with red-brown, purple-brown and ash-coloured spots or streaks.

Raven, p. 26.

Eggs, 5, 6. Gray-green or blue, spotted and blotched with smoky brown.

Creeper, p. 28.

Eggs, 6. White, speckled with red-brown, mostly at the larger end.

Swift, p. 30. *Eggs*, 2, 3.

Pheasant, p. 32.

Eggs, 8—13. Pale olive-green or brown, unspotted.

Ptarmigan, p. 33.

Eggs, 6—15. Pale red-brown, or white, blotched with two shades of darker brown.

Heron, p. 36.

Eggs, 4, 5. Pale blue, with a tinge of green.

Bittern, p. 36.

Eggs, 4, 5. Stone-colour or pale clay-brown.

Redshank, p. 36.

Eggs, 4. Pale yellowish straw-colour, spotted and blotched with dark brown, the dark spots often forming a zone at the larger end; very variable.

Brunnich's Guillemot, p. 45.

Add. Mr. Hancock says that the eggs run through the same varieties as the common guillemot.

BIRDS' NESTS AND BIRDS' EGGS.

Order I. RAPTORES.

GOLDEN EAGLE, *Falco Chrysaëtos.*

Situation. Cliffs facing the sea in Scotland.

Materials. Large rotten sticks, ling, grass. Generally an immense mass, with scarcely any depression in the middle. We have very slight evidence of the golden eagle now breeding in Britain; Pennant informs us that it builds on cliffs near the deer forests in Scotland and on the Snowdon range in Wales. Willoughby tells of a nest in the Peak of Derbyshire, and in the 'History of Northumberland' we learned that "it formerly bred on the highest and steepest part of Cheviot." Sir William Milner found an eyrie in Sutherlandshire.

Eggs, 2, 3. Dingy white or gray, blotched and clouded with red-brown.

WHITETAILED EAGLE, *Falco albicilla.*

Situation. Cliffs facing the sea in Scotland and Ireland.

Materials. Sticks, ling, grass, wool.

Eggs, 2. White, unspotted. "Mr. Maxwell, of Ardbraccan, in Ireland favoured us with two young birds of this species alive, taken the preceding year on a mountainous precipice or craggy cliff called Slieve Donald, impending the sea in the county of Down; the eaglets were covered with a glossy, dark, murrey-coloured down as it was termed." —*Col. Montagu.*

OSPREY, *Falco haliæëtus.*

Situation. Tops of trees, deserted buildings, or rocks; always near water.

Materials. Sticks and wool. Sir William Jardine says "the nest is an immense fabric of rotten sticks;

'Itself a burden for the tallest tree,'

and is generally placed, if such exists, on the top of the chimney, and, if this be wanting, on the summit of the building. * * *

Loch Lomond, Loch Awe, Kilchurn Castle and Loch Menteith have long been breeding places."

Eggs, 4. Yellow-white, spotted and blotched with red-brown.

GOSHAWK, *Falco palumbarius.*

Situation. In tall fir trees in the Orkney Islands? banks of the Dee? forest of Rothiemurchus?

Materials. Sticks, &c.

Eggs, 2—4. Bluish white.

PEREGRINE FALCON, *Falco peregrinus.*

Situation. Sea cliffs all round our coast.

Materials. Sticks, &c.

Eggs, 3, 4. Red-brown, with darker blotches and clouds.

HOBBY, *Falco subbuteo.*

Situation. High trees, often adopting the nest of a crow or magpie, and using the same materials.

Eggs, 3. Almost covered with yellow-brown or umber-brown markings and black dots.

MERLIN, *Falco Æsalon.*

Situation. On the ground among heather.

Materials. Sticks, heather, grass in small quantity.

Eggs, 3—6. Brown, marbled and thickly covered with darker spots or blotches, more especially at the larger end.

KESTREL, *Falco tinnunculus.*

Situation. Mountain rocks and sea cliffs, but sometimes takes possession of the deserted nest of a crow. Mr. Gurney records (Zool. 1820) the fact of a pair of kestrels nesting in a hollow pollard oak.

Materials. Sticks, hay, wool; slight, loose and slovenly.

Eggs, 4—6. Red-brown, or whitish with darker blotches.

SPARROWHAWK, *Falco nisus.*

Situation and Materials. Often adopts the nest of a crow or magpie in tallish trees, but certainly sometimes builds its own of sticks, &c., making a flat platform at first.

Eggs, 4—6. Bluish white, with red-brown blotches at the larger end.

KITE, *Falco milvus.*

Situation. Tall trees, placed in a strong fork. I have never known of a nest of this bird.

Materials. Sticks, lined with a quantity of soft materials, especially wool.

Eggs, 3. Gray-white, speckled and streaked with orange-brown, principally at the larger end.

BUZZARD, *Falco buteo.*

Situation. Woods, in moderately high trees.

Materials. Sticks, hay, wool, leaves; sometimes adopts an old crow's nest.

Eggs, 2, 3. Dingy white, and either plain or blotched and spotted with red-brown, chiefly at the latter end.

HONEY BUZZARD, *Falco apivorus.*

Situation. Trees in thick woods; not uncommon in the New Forest, Hampshire.

Materials. Boughs and twigs of trees broken off with the leaves on, wool, hay. The only reliable description I have read is by Mr. Wilmot, in the 'Zoologist' (Zool. 437); "The nest, a very large one, was placed in the fork of a beech tree, and was built of sticks of considerable size, with which were intermixed twigs with the leaves on; the lining was composed of leaves and wool."

Eggs, 1—3. Yellowish white, spotted and stained with red-brown.

MARSH HARRIER, *Falco æruginosus.*

Situation. In those tussocks of grass or sedge so observable in marshy places, and which are elevated some two or three feet above the ground.

Materials. Sticks, dried sedge and other grasses.

Eggs, 4, 5. White, unspotted.

HEN HARRIER, *Falco cyaneus.*

Situation. On the ground at the bottom of furze bushes, on heaths and moors.

Materials. Dried heather, wool, hair, hay.

Eggs, 4, 5. Both ends equally rounded, white, faintly tinged with blue, and rarely spotted with red-brown. Sir William Milner mentions (Zool. 2014) an instance of a hen harrier's nest with six eggs, found in Sutherlandshire.

ASHCOLOURED HARRIER, *Falco cineraceus.*

Situation. On the ground amongst furze and low brushwood.

Materials. Heather, sticks, hay, wool, laid loosely together.

Eggs, 4—6. White. This hawk has a great propensity to take and devour the eggs of other birds, as recorded by Mr. Rodd at p. 3475 of the 'Zoologist.'

LONGEARED OWL, *Strix otus.*

Situation. Trees in woods.

Materials. Adopts the nest of a crow or magpie, never making one of its own.

Eggs, 3—7. White, almost equally blunt at both ends.

Shorteared Owl, *Strix brachyotus.*

Situation. On the ground on extensive moors and heaths.

Materials. Scarcely any. Sir William Jardine writes of the earth being merely scraped or scooped out in the form of a nest.

Eggs, 4, 5. White, equally blunt at both ends.

Barn Owl, *Strix flammea.*

Situation. Barns, churches, ruins, old buildings and hollow trees.

Materials. Generally very slight; sticks, hay, and often only the bird's castings.

Eggs. Laid in pairs; a second pair, and often a third, being laid before the young produced from the first pair has flown.

Tawny Owl, *Strix aluco.*

Situation. Trees, generally adopting the old nest of a crow: sometimes, according to Selby, in hollow trees.

Materials. None brought by the birds.

Eggs, 3—5. White, elliptical.

Order II. INSESSORES.

Redbacked Shrike, *Lanius Collurio.*

Situation. In whitethorn hedges, furze bushes, &c.

Materials. Moss, wool, hair, bents of grass.

Eggs, 5, 6. Pink-white or cream-colour, with brown spots, particularly at the larger end.

Spotted Flycatcher, *Muscicapa grisola.*

Situation. In trees trained against houses and other buildings, particularly pears, apricots, roses; often in barns, summer-houses and green-houses; once in a lamp at Leeds, and once in London. See also p. 3657 of the 'Zoologist,' and especially p. 3577, where it is related that the nest was built on a hoe that hung on a nail in a tool-shed, and was not discovered until finished. When the hoe was wanted the nest was taken off and laid on a shelf, and returned to its original site as soon as the hoe was hung up again, an arrangement which the parent birds cordially approved, and eventually brought off their young ones in safety.

Materials. "Of three nests now before me, one is formed on the outside of old dark-coloured moss, mixed with roots, the lining of grass stems, with only two or three white feathers; the second has the bottom and outside of fresh green moss, lined with a few grass bents, long horse hairs, and several mottled hairs, apparently those of a turkey; the third is similar to the last on the outside, but lined with long horsehair, wool and feathers."—*Mr. Yarrell.*

Eggs, 4, 5. Gray-white, with pale raw-sienna spots.

Pied Flycatcher, *Muscicapa atricapilla.*

Situation. In hollow trees. "For a long series of years a pair of pied flycatchers had incubated their eggs and nurtured their young in security in a small aperture close by the portico to the principal entrance of my father's residence, Hendre House, Denbighshire, undisturbed, apparently, by the frequent passing and repassing of its inmates. The lively effect of the well-defined and strongly-contrasted black and white plumage of the male, his short but pleasant song, and the confiding habits of both sexes, rendered them objects of great interest to all the members of the family, who did not allow them to be molested on any pretext whatever. Unfortunately, on the 18th of June, 1843, a swarm of bees discovered the aperture, which then contained a brood of nestlings nearly fledged, and by hurrying in and out of it, and flying about the entrance in large numbers, seemed determined to dispossess the rightful owners. Whenever the parent birds attempted to approach the spot, for the purpose of feeding their young, they were instantly attacked and repelled by the excited bees, from which they took refuge among the branches of an oak growing near, and there manifested their anxiety by notes and actions, expressive of extreme uneasiness. After having been severely stung, the nestlings fluttered to the mouth of the aperture and descended to the ground, where they all perished, their bodies being much swollen. Towards the close of April, 1844, the same pair of birds returned to their favourite breeding haunt, and repeatedly visited the aperture so long occupied by their nest; but being again assailed by the bees, which had removed to a parallel aperture on the other side of the portico, it is probable that the incident recalled the destruction of their progeny in the preceding year, for they eventually deserted the place, and selected a hole in a low stone wall, by the side of the avenue leading to the house, in which they constructed a nest and brought up their young. This instance,—and other cases might be adduced,—evidently tends to show that the pied flycatcher resorts annually to the same locality for the purpose of continuing its species, and that like its congener, the spotted flycatcher, it is a very familiar bird during the breeding season."—*Mr. Blackwall.*

Materials. Leaves, hay, hair, feathers.

Eggs, 4, 5. Pale blue-green, unspotted.

Dipper, *Cinclus aquaticus.*

Situation. Banks of streams, caves, underneath the arches of bridges.

Materials. Moss for the exterior, dry leaves for the lining, of large size and almost globular form, with a central hole for the entrance and exit of the bird.

Eggs, 5. White, delicate, semitransparent, unspotted.

Missel Thrush, *Turdus viscivorus.*

Situation. In trees, resting on a branch close to the trunk, often amongst ivy. A singular instance of a pair of this bird laying twice in the same nest is recorded by Mr. Bond. "A pair of missel thrushes built a nest in a low shrub in a neighbour's garden, and brought off their young; since which the hen laid four more eggs, but after sitting some time deserted the nest in consequence of its cracking nearly in two."—*Zool.* 656.

Materials. Moss, grass, wool, the interior lined with slender dried stems of grasses.

Eggs, 4—6. Pale green, speckled with brown of two shades.

Song Thrush, *Turdus musicus.*

Situation. Hedge-banks, sometimes on the ground and low bushes, or against the trunk of a tree, especially in ivy.

Materials. Moss and grass outside, the interior lined with a coating of moss, clay or cow-dung, in which decayed wood is often mingled.

Eggs, 4—6. Blue-green, with purple-black spots; sometimes unspotted. A very unusual departure from the usual colouring is recorded in the 'Zoologist' (Zool. 1875), the ground being white, the spots dark red.

Blackbird, *Turdus merula.*

Situation. Bushes, holly, laurel, in ivy on a tree trunk, &c. Mr. Duncan mentions in the 'Zoologist' (Zool. 382), an instance of a blackbird building its nest within that of a magpie. I have repeatedly known a pair of blackbirds commence four or five nests near the same spot, and only finish one of them: the cause of this I am unable to explain.

Materials. Moss, twigs, roots, intermixed with mud, clay, or cow-dung, but lined inside this plastering with very fine slender grasses. The following is a remarkable instance of blackbirds building on the ground. "While walking this morning my attention was drawn to what struck me as being a very curious circumstance, namely, a blackbird's nest built in, or rather scooped out of, the ground. The soil thereabouts is a deep sand, and in this the old bird had formed a hollow, exactly resembling a nest in shape, and had lined it with lichens or fine twigs or some similar substance. The nest con-

tained four eggs, on which the hen was evidently sitting hard, as she allowed herself to be approached quite close before she would move, and returned again almost immediately after I had moved away. The nest is at the foot of a large chestnut tree, but the two areas unconnected, as if they were twenty miles apart. The ground, too, is comparatively open and unsheltered; that is, though there are other trees, there are no bushes in the neighbourhood. What could have induced this bird to have so far deviated from the habits of its tribe as to prefer the naked ground to a thick bush? not to mention the wide difference that must exist between collecting twigs and building a nest in a tree, and the scooping out a hollow in sand; for it is evidently not an accidental hole in the ground, but a spot deliberately fixed on and worked out."—*Rev. W. W. Spicer* (Zool. 1023).

Eggs, 4, 5. Blue-green, rather dull, uniformly sprinkled with brown; rarely bright blue-green, unspotted.

Ring Ouzel, *Turdus torquatus.*

Situations. Only in the northern mountainous districts of England and Scotland, on steep banks, in clefts of rocks, low bushes, &c. Mr. Evans, of Coventry, has given (Zool. 2142) a very minute account of their breeding in Warwickshire.

Materials. Moss, roots, lined with fine grasses.

Eggs, 4, 5. Blue green, dull, freckled with brown. Either blackbirds' eggs are offered for sale as those of the ring ouzel, or the eggs of the two species are so similar as scarcely to be distinguished.

Hedgesparrow, *Sylvia modularis.*

Situation. In whitethorn hedges, dwarf hollies, laurels, furze bushes, &c.

Materials. Moss and wool lined with hair.

Eggs 4—6. Bright blue-green.

Robin Redbreast, *Sylvia rubecula.*

Situation. Quite on the ground on banks, but generally protected by roots, or in a cavity, or under ivy. Many other and very strange situations are recorded. The Rev. John Atkinson mentions (Zool. 565) an instance of a pair of robins building in a watering pot; and Mr. Clebborn records (Zool. 1368) the extraordinary fact of a pair of robins nesting in a human skull.

Materials. Moss, dried stems of herbaceous plants and leaves, lined with hair.

Eggs, 5, 6. Gray, with red-brown spots, but frequently white and unspotted.

REDSTART, *Sylvia phœnicurus.*

Situation. Holes in walls, rocks, trees, barns, stables, &c. "One day having occasion for a flower-pot, not of a very large size, I took one which had been left inverted in a narrow path between two sea-kale beds. On lifting it up I discovered a redstart's nest with five eggs placed on the ground. I carefully replaced the pot over the nest, inclining it a little towards the south, so that when the sun was shining I could just discern the eggs through the hole at the bottom (now, from its inverted position, the top) of the pot. On passing it soon after, I found the hen bird was on the nest; and she succeeded in hatching and bringing up her brood; paying no regard to my looking down upon her as I passed by, if I did not stop."—*Rev. John Atkinson* (Zool. 355).

Materials. Moss, lined with hair and feathers.

Eggs, 5—7. Pale blue-green, unspotted.

STONECHAT, *Sylvia rubicola.*

Situation. On the ground at the bottom of a furze bush.

Materials. Moss and dry grass; the lining feathers, hair, and sometimes fine grass.

Eggs, 5, 6. Pale blue-green, with minute red-brown spots at the larger end.

WHINCHAT, *Sylvia rubetra.*

Situation. On the ground on heaths, &c., or very near the ground, concealed with such skill that I have searched for hours without finding, although certain it was within a short distance of me. The bird is said to make a kind of track or meuse along the grass to its nest, and to enter this meuse at a considerable distance from the nest.

Materials. Moss and grass of two binds, the coarser on the exterior, the finest employed for the lining.

Eggs, 5, 6. Delicate blue-green, with fine red-brown specks.

WHEATEAR, *Sylvia œnanthe.*

Situation. Always in the chinks of stone walls, or under stones on moors or mountain wilds.

Materials. Moss, dried grass, wool and hair: the wool left on brambles and thickets is always sought by these birds.

Eggs 5, 6, pale blue-green unspotted.

GRASSHOPPER WARBLER, *Sylvia locustella.*

Situation. In furze-bushes on commons, generally at the very bottom.

Materials. Moss, grass, lady's bedstraw; the lining fine grass.

Eggs, 4—7. Gray tinged with rose-colour, speckled all over with the same colour, but of a deeper shade.

The Rev. William Turner gives the following account of the nesting of this bird:—"Out of a tuft of grass overarched by a bramble, and containing a small plant of whitethorn, I observed something hop, as it were, and immediately drop into the herbage. I examined the tuft, in hopes of finding a nest of something or other; but a careful search resulted in nothing but disappointment. In the course of the day I returned to the spot: there was the same hop and away, but the motion was so short and quick that I could not even then distinguish whether I had seen a bird or a mouse. I repeated my search for a nest, but with no better success than before. I then sat down by the spot to watch if anything would approach, and it was not long before I observed the grass move, and a veritable Sylvia locustella (threading its way through the grass) approached within arm's length of me; but, after eyeing me for a moment, it commenced a retreat. Feeling confident there must be a nest, I took my knife and carefully cut away the herbage near the tuft, and then proceeded with the tuft itself, in the very centre of which, and in a depression of the ground, I found the object of my search; but to the very last there was not the slightest appearance of ingress or egress. I was so struck with what I had witnessed that I again sat down, and ever and anon the same stealthy movements to and fro were repeated. The male bird appeared very shy, and only once approached, and then not nearer than eight or ten yards; it perched on a twig just above the ground, and for awhile kept up a harsh grating noise, but soon disappeared, and I saw it no more. The female uttered no cry. The other two nests I detected in the same manner, in small open places in an extensive wood: their situations were exactly alike, being in the centres of two very large tufts of coarse grass, at a depth of fourteen or fifteen inches (about the same depth as the first nest) from the top. These tufts were free from thorns or brambles, and, being much larger than the first, afforded sufficient concealment, without the nest resting on the ground. There was the same absence of all appearance which could lead you to suppose they contained a nest. In both cases I watched the movements of the female, and they were precisely the same as I have already described; she never rose on the wing; and it would seem probable (if not disturbed) she never flies either to or from her nest, but threads her way through the herbage, and thus effectually prevents everything that could lead to the discovery of her retreat. The whole proceeding most forcibly reminded one of a mouse under similar circumstances. The eggs were six in number. The nests, in the two latter instances, were entirely of dry grass, finer internally; in the first there was a

little moss outside, owing probably to a trifling difference of situation." —*Zool.* 941.

SAVI'S WARBLER, *Sylvia luscinioides.*

Situation. On the ground, in the parish of Milton, between three and four miles from Cambridge.

Materials. The leaves of the common reed, without any other lining.

Eggs, 4, 5. Whitish, nearly covered with minute specks of two colours, pale red and light ash-gray. "These nests were found at Baitsbite, in the parish of Milton, between three and four miles north of Cambridge. The nests, in each instance, were on the ground in a thick tuft of sedge. These are cup-shaped, compactly formed of the long narrow leaves of the common reed (*Arundo Phragmitis*), wound round and interlaced, but without any other lining. The eggs measure ten lines in length by seven and a half lines in breadth; of a whitish ground-colour, covered nearly all over with minute specks of two colours, one set being of a pale red, the other of light ash-gray; in some of the eggs the pale red spots are more conspicuous, and these resemble the eggs of the grasshopper warbler, but are rather larger; in others the gray specks are predominant, and these resemble the eggs of the Dartford warbler."—*Mr. Bond* (Zool. 1212).

SEDGE WARBLER, *Sylvia Phragmitis.*

Situation. At the foot of low bushes by the sides of ponds and ditches, or in a tuft of grass: in situations exactly similar to those selected by the reed bunting, and not suspended among reeds, as recorded by Mr. Selby and others; in fact it seldom frequents reeds.

Materials. Moss and coarse grass externally, lined with hair and fine dry grass.

Eggs, 5, 6. Pale umber-brown, sometimes slightly streaked with black.

GREAT SEDGE WARBLER, *Sylvia turdoides.*

Situation. In beds of reeds, supported by three or four of the reed-stems.

Materials. Dried leaves and flowering scapes of the reeds.

Eggs, 4, 5. "Pale greenish white, spotted and speckled with ash-gray and reddish brown."—*Yarrell*, i. 301.

REED WREN, *Sylvia arundinacea.*

Situation. In marshy situations suspended over the water, between the stems of reeds, to which it is curiously and beautifully fastened by the dried grasses and reeds, of which it is principally constructed: often in bushes near water.

Materials. Dried leaves, as well as the dried flowering scapes of the reed.

Eggs, 4, 5. White, tinged with green, and blotched with brown and olive-green.

NIGHTINGALE, *Sylvia Philomela.*

Situation. On the ground, especially on banks.

Materials. Dried leaves outside, lined with fine grass.

Eggs, 4—6. Yellow olive-brown, unspotted; occasionally blue.

BLACKCAP, *Sylvia atricapilla.*

Situation. In nettles, brambles, always near the ground, but not on it. "A pair mostly build in the laurel hedge in my garden, and place the nest six feet from the ground."—*Mr. Doubleday.*

Materials. The dried stems of cleavers, fibrous roots, &c.; very slovenly in structure.

Eggs, 4, 5. Whitish, spotted and blotched with two shades of brown or delicate pale pink, with dark red spots and blotches.

GARDEN WARBLER, *Sylvia hortensis.*

Situation. Among nettles and in bramble-bushes, or traveller's joy when densely matted and near the ground.

Materials. Moss, dried goose-grass, fibrous roots, wool, horsehair; a loose and slovenly nest.

Eggs, 4, 5. Pale stone-colour, spotted with ash-gray and brown.

WHITETHROAT, *Sylvia cinerea.*

Situation. Among nettles and in bramble-bushes, or in any low and very thick herbage.

Materials. Generally the dead stems of goose-grass and a little hair; the materials are very loosely attached, and the nest appears carelessly made.

Eggs, 4, 5. Greenish white, spotted with gray and brown; the spots much thicker at the larger end, and forming a zone.

LESSER WHITETHROAT, *Sylvia curruca.*

Situation. Among nettles, brambles, &c.

Materials. Stout bents outside; finer ones and horsehair inside.

Eggs, 4, 5. White, inclining to gray, with scattered spots of dark gray and pale umber-brown, chiefly at the larger end.

WOOD WREN, *Sylvia sylvicola.*

Situation. On the ground, among coarse tufts of grass; its shape a depressed sphere.

Materials. Hay, leaves, moss, lined with very fine hay and horsehair.

Eggs, 5, 6. White, covered with purple-red spots, rarely confluent and forming a zone at the largest part.

WILLOW WREN, *Sylvia trochilus.*

Situation. On the ground, generally on the bank bordering roads that have been worn through woods; its shape a depressed sphere, with a lateral opening.

Materials. Moss and grass externally, lined with feathers.

Eggs, 5—7. White, delicately speckled with red, or sometimes unspotted white.

CHIFFCHAFF, *Sylvia rufa.*

Situation. On or near the ground in hedge-banks; nearly spherical or oval, with a lateral opening.

Materials. Dead grass, leaves and moss outside; a profusion of feathers in the interior.

Eggs, 5, 6. White, with a few purple-brown specks.

DARTFORD WARBLER, *Sylvia provincialis*, Temminck.

Situation. Thick furze bushes, about two feet from the ground.

Materials. "The nest is composed of dry vegetable stalks, particularly goosegrass, mixed with the tender dead branches of furze, not sufficiently hardened to become prickly: these are put together in a very loose manner, and intermixed very sparingly with wool. In one of the nests was a single partridge's feather. The lining is equally sparing, for it consists only of a few dry stalks of some fine species of Carex, without a single leaf of the plant and only two or three of the panicles. This thin, flimsy structure, which the eye pervades in all parts, much resembles the nest of the whitethroat."—*Col. Montagu, Linn. Trans.* "I possess eight nests of the Dartford warbler: they all agree with Montagu's description, as far as the materials are concerned, but they are much more compact than he describes them, and not at all like the whitethroat's."—*Mr. Bond.*

Eggs, 4—6. "The eggs are also similar to those of Sylvia cinerea (the whitethroat), but rather less, weighing only 22 grains; like the eggs of that species they possess a slight tinge of green; they are fully speckled all over with olivaceous-brown and cinereous on a greenish white ground, the markings becoming more dense and forming a zone at the larger end."—*Col. Montagu, Linn. Trans.* "I have about twenty eggs of the Dartford warbler, and they are more like those of the lesser whitethroat."—*Mr. Bond.*

GOLDENCRESTED REGULUS, *Regulus cristatus.*

Situation. Suspended from the horizontal twigs of the spruce fir

or yew, rarely of other trees: several instances are recorded of this bird breeding twice in the same nest (see Zool. 871).

Materials. Moss and lichen, lined with feathers; a very beautiful and compact structure. Mr. Selby, as I think erroneously, described this nest as spherical: I should call it a hollow hemisphere; in this not differing from the ordinary form of compact nests.

Eggs, 6, 7. Rosy white or very pale brown, unspotted.

GREAT TITMOUSE, *Parus major.*

Situation. Holes in the trunks of trees, or of walls: on the former Mr. Selby has this observation, "The excavation is made by the bird itself, which I have seen busily engaged in this task, and have admired the rapidity with which the work advanced." Mr. Hawkins relates (Zool. 3503) a singular instance of this bird building its nest in a drinking-cup.

Materials. Moss, feathers, hair.

Eggs, 6—12. White, spotted with red-brown.

BLUE TITMOUSE, *Parus cæruleus.*

Situation. Holes in trees or walls.

Materials. Moss, feathers, hair.

Eggs, 7—9. White, spotted with red-brown at the larger end.

CRESTED TITMOUSE, *Parus cristatus.*

"At Inverness, on the 23rd June, I was shown some specimens of the crested titmouse, with some unblown eggs, taken a few days before from the pine woods of Strathspey, where they are by no means uncommon. The boy who took the eggs told me they were always to be found in the hole of a tree highish up; he took the female with the nest and five eggs. The eggs are the size of those of the blue titmouse, and like them in colour, with the addition of being more mottled at the larger end."—*Sir William Milner* (Zool. 2017). "I have Scotch specimens in which the spots are larger and brighter than in those of the blue titmouse."—*Mr. Bond.*

COLE TITMOUSE, *Parus ater.*

Situation. In the ground in banks this bird takes possession of the deserted hole of a rat, mole, or perhaps mouse; sometimes, but not so often, in the trunks of a tree. "I once found one on the branch of a fir, close to the bole, very like a longtailed tit's, but much rounder."—*Mr. Bond.*

Materials. Moss, wool, hair.

Eggs, 6—9. White, spotted with red-brown.

MARSH TITMOUSE, *Parus palustris.*

Situation. Holes of trees, especially willows, placing the nest very

deep. Mr. Gurney mentions one built in a rat's hole (Zool. 3503). They often build in holes in banks.

Materials. Moss, the down of the ripe catkins of the willow, and the fur of rabbits, if they can procure it.

Eggs, 6—8. White, with red-brown spots, more numerous at the larger end.

LONGTAILED TITMOUSE, *Parus caudatus.*

Situation. Bushes and trees.

Materials. Lichens and wool, lined with feathers. The nest of this strange-looking little bird is totally different from that of any other species with which it is associated by naturalists; it is one of the most beautiful and interesting structures that the student of birds has ever discovered: its size is remarkably large for the bird, its shape oval, its position perpendicular; the whole structure is strongly and compactly united by the interweaving of wool with the moss and lichens; on one side is a circular hole through which the bird enters, but this is scarcely visible when she is absent, so that I am inclined to believe she partially closes this opening on leaving the nest, for the sake of security. Mr. Selby makes an assertion with respect to this nest that I have never been able to verify. "A small hole," says this distinguished naturalist, "is left on two opposite sides of the nest, not only for ingress and egress, but also to prevent the bird, during incubation, from being incommoded by its long tail, which then projects through one of the orifices." Mr. Bond tells me he does not think there are ever two holes.

Eggs, 7—9. White, delicately tinged with rose-colour until blown, when they lose this hue; there are some very minute red-brown specks about the larger end.

BEARDED TITMOUSE, *Calomophilus biarmicus.*

Situation. Large beds of reeds in Hickling and Hornsey Broads, in Norfolk.

Materials. "The nest is composed, on the outside, of dead leaves of the reed and sedge, intermixed with a few pieces of grass, and lined with the top of the reed. It is generally placed in a tuft of coarse grass or rushes near the ground, on the margin of the dykes, in the fen; sometimes fixed among the reeds that are broken down, but never suspended between the stems."—*Mr. Hoy.*

Eggs, 4—6. White, with pale red-brown lines.

This bird appears to me to have no relationship to the tits, with which it is always associated: in structure, nest and eggs it more nearly resembles the buntings.

Pied Wagtail, *Motacilla Yarrellii.*

Situation. Holes in stone walls, heaps of stones by road-sides, quarries, roofs of porticos, pollard willows at the top of the trunk. Some remarkable situations for the nests of wagtails are recorded in the 'Zoologist': I will cite one. "Under a switch of the Ayrshire Railway,. at the Lochwinnoch Station, a pied wagtail built her nest and sat on five eggs, although there was scarcely an hour in the day without trains passing over it, and the whole of the engine and carriages within two or three inches of the nest."—*Zool.* 726.

Materials. Moss, fibrous roots, grasses, wool, horsehair.

Eggs, 4—6. Gray, speckled with light umber-brown.

Gray Wagtail, *Motacilla boarula.*

Situation. Shelves of rocks, under stones in quarries and on banks.

Materials. Moss, bents and horsehair.

Eggs, 5, 6. Gray, blotched with ochre-gray.

Ray's Wagtail, *Motacilla campestris.* This bird is better known among collectors by the names of "Yellow Wagtail" and "Motacilla flava," both which names are considered properly to belong to another European species which occasionally visits this country, but I think does not breed here.

Situation. On the ground.

Materials. Hay, bents, fibrous roots, lined with horsehair and cow's hair.

Eggs, 4, 5. Pale umber-brown, with darker spots.

Tree Pipit, *Anthus arboreus.* This species is confounded with the following, under the name of "Titlark": the name should be confined to the Meadow Pipit.

Situation. On the ground, under shelter of a loose turf or tuft of grass.

Materials. Moss, fibrous roots, wool, grasses, lined with finer grasses and hair.

Eggs, 4—6. Probably more variable than those of any other British bird; sometimes pale brown, thickly dotted with deep brown spots, mostly forming a zone at the larger end; sometimes deep brick-red colour, thickly sprinkled with dots of a deeper shade; at other times pale or reddish, marked with spots and streaks, like the eggs of the buntings; others closely resemble the red variety of the egg of the blackcap, and others again are very similar to the egg of the house sparrow.

Meadow Pipit, *Anthus prattensis.*

Situation. On the ground, protected, if possible, by a loose turf or tuft of grass.

Materials. Bents and the seed-stalk of Cardamine pratensis, lined with very slender bents or horsehair.

Eggs, 5, 6. Pale brown, freckled with spots of a deeper colour: vary but little.

Rock Pipit, *Anthus obscurus.*

Situation. Crevices or ledges of sea-cliffs.

Materials. Coarse bents and sea-weed on the outside; finer ones and sometimes horsehair for the lining.

Eggs, 4, 5. Gray, spotted with red-brown; the spots crowded at the larger end, like those of the meadow pipit.

Skylark, *Alauda arvensis.*

Situation. On the ground amidst corn and standing grass.

Materials. The dried stems of a variety of herbaceous plants outside; lined with very fine grasses.

Eggs, 4, 5. Dirty white, tinged with green, and spotted with umber-brown, generally forming a zone at the larger end.

Wood Lark, *Alauda arborea.*

Situation. On the ground, under a tuft of grass or any low plant.

Materials. Grasses and bents, the coarser ones outside, the finer used for lining.

Eggs, 4, 5. White, thickly speckled with reddish brown; rarely zoned at the larger end.

Shore Lark, *Alauda alpestris.*

The Hon. T. L. Powys mentions (Zool. 3707) the very remarkable fact of the shore lark breeding in Devonshire. "On the 12th of July, 1851, my friend, Mr. W. W. Buller, found a nest of the shore lark near Exmouth, South Devon, among some bent grass close to the sea, and containing four eggs. The eggs were very much like those of the wood lark. The hen bird was caught on the nest, and is in my friend's possession."

Common Bunting, *Emberiza miliaria.*

Situation. Among coarse grass, near to or on the ground.

Materials. Straw, coarse hay, outside; lined with fibrous roots and sometimes with horsehair.

Eggs, 4—6. Gray, tinged with yellow, with red-brown and ash-coloured spots and streaks.

Blackheaded Bunting, *Emberiza Schœniclus.*

Situation. On the ground, under a tussock of Carex, Aira cæspitosa, or some coarser grass, always in moist swampy localities.

Materials. Moss, dried grass, lined with fine grass and horsehair.

Eggs, 4, 5. Gray, with a slightly rosy tinge, spotted, streaked and veined with purple-brown. "The eggs much resemble those of a chaffinch."—*Col. Montagu.*

Yellow Hammer, *Emberiza citrinella.*

Situation. On or near the ground, commonly under shelter of overhanging grasses. I have on three occasions found the nest of this bird in cart-ruts seldom used; in two instances the parent had perished by the passage of a waggon laden with hay.

Materials. The decayed or dried leaves of grass form the exterior of the nest, then follows a layer of finer grasses, and the whole is lined with horsehair.

Eggs, 3—6. Dingy white, tinged with purple, streaked and veined with purple-brown, each streak or vein generally terminating in a spot of the same colour.

Cirl Bunting, *Emberiza Cirlus.*

Situation. "It generally builds in furze or some low bush."—*Col. Montagu.*

Materials. "The nest is composed of dried stalks, roots and a little moss, and lined with long hair and fibrous roots."—*Col. Montagu.*

Eggs, 4, 5. "The eggs are four or five in number, cinereous-white, with irregular long and short curved dusky lines, terminating frequently with a spot at one end; size rather inferior to those of the yellow hammer."—*Col. Montagu.* "I have taken several nests in the Isle of Wight."—*Mr. Bond.*

Chaffinch, *Fringilla cœlebs.*

Situation. Generally in forks of smaller branches of lichen-covered apple-trees, but also in other trees; and I have found the chaffinch's nest in the ivy which sometimes clothes the trunks of trees.

Materials. Moss, lichens and wool, interwoven into the most compact mass, and forming a beautiful and symmetrical object, always assimilating in colour to the site the bird has chosen; the lining is feathers and hair.

Eggs, 4, 5. Gray, tinged with blue and pink, and streaked and spotted with purple-red; sometimes all pale blue.

Tree Sparrow, *Fringilla montana.*

Situation. In the holes of pollard and other trees that have gone to decay; rarely in the thatch of old barns, &c.

Materials. Hay, straw, lined with feathers, the flowering tops of reeds, &c.; the top domed over (Zool. 1875).

Eggs, 4, 5. Gray, thickly spotted with darker gray, or umber-brown; frequently white, with gray spots or blotches.

HOUSE SPARROW, *Fringilla domestica.*

Situation. Generally under the eaves of houses, barns or stables; sometimes in the mud-built habitation of the martin, but not uncommonly in trees in exposed situations and quite apart from buildings.

Materials. Straw and hay, lined with feathers.

Eggs 5, 6. Gray, almost white, but thickly sprinkled and spotted with darker gray or black. "Of a very long, oval form."—*Mr. Selby.*

GREENFINCH, *Fringilla chloris.*

Situation. In thick hedges, ivy and other evergreens.

Materials. Moss and wool, lined with hair and feathers. Mr. Gurney writes (Zool. 3576), "In a bushy plant of heath, growing in a garden near Norwich, were found two nests of the common greenfinch, which not only were completely interwoven at the adjoining sides, but were built on one common platform, a foundation of fibrous roots and moss. Both nests were complete, except that one of them was deficient in interior lining. When found I understand there was one egg in each."

Eggs, 4, 5. White, with a tinge of blue, speckled at the larger end with light orange-brown.

HAWFINCH, *Fringilla coccothraustes.*

Situation. "The situation of the nest is various; but it is most commonly placed in an old scrubby whitethorn bush, often in a very exposed situation; they also frequently build on the horizontal arms of large oaks, the heads of pollard hornbeams, in hollies, and occasionally in fir trees in plantations; the elevation at which the nest is placed varying from five to twenty-five or thirty feet."—*Mr. Doubleday.*

Materials. "The most correct description of the nest which I have seen is in Latham's 'Synopsis.' It is there said to be composed of the dead twigs of oak, honeysuckle, &c., intermixed with pieces of gray lichens; the quantity of this last material varies much in different nests, but it is never absent; in some it is only very sparingly placed among the twigs; in others the greater part of the nest is composed of it; the lining consists of fine roots and a little hair. The whole fabric is very loosely put together, and it requires considerable care to remove it from its situation uninjured."—*Mr. Doubleday.*

Eggs, 4—6. "The eggs vary in number from four to six, and are of a pale olive-green, spotted with black, and irregularly streaked with dusky gray. Some specimens are far less marked than others, and I have seen some of a uniform pale green."—*Mr. Doubleday.*

Mr. Selby's account of the nest and eggs of this bird appears to me entirely erroneous.

GOLDFINCH, *Fringilla carduelis.*

Situation. Gardens and orchards, seeming to prefer cultivated to uncultivated districts; often in evergreens, sometimes in roses and other trees trained against a house.

Materials. Lichen, moss, a little hay and wool most compactly interwoven, and lined with hair and the seed-down of the willow.

Eggs, 4, 5. White, tinged with blue, spotted with raw sienna at the larger end.

SISKIN, *Fringilla spinus.*

Situation. In furze bushes, about three feet from the ground: the eggs were taken, hatched under a canary and reared.—*Mr. Yarrell.* Mr. Newton (Zool. 3707) gives a most interesting account of siskins breeding in confinement. The nest is rarely found in Britain.

Materials. Green moss, dried grass, small twigs, rabbits' down and sometimes feathers. "I have a siskin's nest, taken in Scotland, that is built of fine grass and mosses, not one feather, a few small dead fir twigs outside, and lined with fine grass and a very little wool."—*Mr. Bond.*

Eggs, 4, 5. "Of a bluish ground-colour, some being spotted and others marked with rust-colour, either in well-defined dark spots about the larger end or cloudily dispersed over the whole surface."—*Mr. Newton.*

I know of but one instance of siskins breeding in confinement. "One of the females of two pairs of siskins which had been given to me having unfortunately died, early in 1844, I placed the remaining female and a male, apparently of the same age, in a large oblong wire cage, with materials suitable for the construction of a nest, which, however, they made no attempt to form. Having this year turned out the male, and substituted an older bird, the pair, about the middle of May, showed evident signs of an inclination to breed. I then put up two forked sticks at the one end of the cage, on one of which I placed a nest of the redbacked shrike, and on the other one of the reed warbler; the bottom of that end of the cage which contained the nests being covered with soft green moss. The female almost immediately pulled down the nests, and scattered the materials about the bottom of the

cage; but she soon left them, and began her nest on the moss near the corner of the cage, which she drew about her, turning herself frequently round, the latter action being accompanied by a slight motion of the wings. The nest was completed in about a fortnight, and was very neat and substantial. It was composed of moss, mixed with some of the materials of the other nests and a little cotton wool, and was principally the work of the female. The first egg was laid on the 6th of June, and by the 12th six were deposited. The colour of the egg is bluish white, spotted at the larger end with pale rust-colour; the weight 23 grains."—*Mr. John Smith* (Zool. 1065).

LINNET, *Fringilla cannabina.*

Situation. In whitethorn, blackthorn or furze bushes; rarely in trees.

Materials. Moss, bents and wool, lined with hair and feathers. "I don't think I ever saw a nest without fine fibrous roots in it: I have two nests built almost entirely of fibrous roots; one has only a small quantity of wool and the other a small quantity of horsehair in addition."—*Mr. Bond.*

Eggs, 4—6. White, tinged with blue and speckled with purple-red.

LESSER REDPOLE, *Fringilla linaria.*

Situation. In the alders or willows and sallows which so often fringe the streams and ponds in mountain or lake districts. Mr. Bury informs us (Zool. 643) that two nests of this little bird have been found in the Isle of Wight.

Materials. Moss and hay outside, lined with the down of the catkins of the willow. "As smoothly lined with the beautiful white catkins of the willow as a box of jewels with the finest cotton-wool."—*Mr. Hewitson* (Zool. 3027).

Eggs, 4, 5. Very pale blue-green, speckled about the larger end with orange-red. "The eggs are sometimes so blue as to retain much of the colour after they are blown."—*Mr. Hewitson* (Zool. 3027).

TWITE, *Fringilla montium.*

Situation. "Amid the tops of the tallest heath in the mountainous districts of England and Scotland."

Materials. "Composed of dry grass and heather, lined with wool, fibres of root, and the finer parts of the heath."—*Mr. Selby.*

Eggs, 4, 5. "Of a pale bluish green colour, spotted with pale orange-brown."—*Mr. Selby.*

BULLFINCH, *Loxia pyrrhula.*

Situation. In very thick garden hedges and in thick bushes in woods. Although the bullfinch is so common a cage-bird I have

known but of a single instance of its breeding in confinement: I am indebted to Mr. Gurney Barclay for a narrative of this interesting circumstance: "In 1837 a pair of these birds, which had been caged some months, were observed eagerly picking up moss and hair in the room in which they were accustomed to fly loose, and on their being furnished with materials speedily constructed a nest, chiefly of fibrous roots, similar to that of a bullfinch in a state of nature. The female laid five eggs, from which three young birds were hatched."—*Zool.* 453. The bullfinch sits on her eggs with such steadfastness that she will allow herself to be handled without leaving the nest: instances of this have often been recorded. I cite one: "A female while sitting once allowed me to pass my finger several times down her head and back without taking wing. I did this on two or three occasions; once in presence of other persons: the bird would open her beak in a threatening manner, and submit open-mouthed to my caresses."—*Rev. C. A. Bury* (Zool. 643).

Materials. Twigs, fibrous roots; a loose, carelessly constructed nest. I have had many opportunities of watching the whole process of nidification and incubation in this bird, and have found the female sit so close that you may stroke her back with a finger without inducing her to leave the nest. I never found the male engaged in incubation.

Eggs, 4, 5. White, tinged with blue, and spotted with raw sienna-brown.

Crossbill, *Loxia curvirostra.*

Situation. Fir trees, near Hampton Lodge, Surrey.

Materials. "The nest is rather small in proportion to the size of the bird, being only four inches and a half across the top, outside measure, where it is widest, and the central cavity but three inches in diameter. The outside is strengthened with a few slender twigs of fir, then a layer of coarse dry grass, lined with finer grass and a few long hairs. It is lodged close to the central or main stem of a Scotch fir, about thirty inches below its highest point, at the base of the shoots; here the nest is supported underneath by five or six ascending lateral branches of the fir, which so entirely conceal it that it can scarcely have been perceptible from the ground, and the occasional visits of the parent birds probably betrayed their retreat."—*Mr. Long, of Hampton Lodge, near Farnham.* "Four or five years ago the Scotch firs in the Holt Forest were cut down to allow more room for the growth of the young oaks: when the trees were thrown four nests of the crossbill were found in their topmost forks."—*Mr. Lewcock* (Zool. 189).

Eggs, 4, 5. "The eggs measure seven-eighths of an inch in length and five-eighths of an inch in breadth; the colour white, slightly tinged with pale skim-milk blue, and sparingly speckled with red."—*Mr. Long.*

STARLING, *Sturnus vulgaris.*

Situation. In hollow trees, holes in the walls of ruins, sea cliffs, and more commonly in houses, entering a hole under the eaves. They have bred in the house I inhabit for many years.

Materials. Sticks, straw, hay, roots.

Eggs, 4. Delicate pale blue, unspotted.

I have frequently known three old birds to one nest.

CHOUGH, *Pyrrhocorax graculus.*

Situation. In the holes of ruins and near the sea, and in sea-cliffs and sea-caves.

Materials. Sticks, lined with a great quantity of wool and hair.

Eggs, 5, 6. Dirty white, spotted and blotched, more especially at the larger end, with raw sienna-brown and ash-colour.

RAVEN, *Corvus corax.*

Situation. Tops of lofty trees or crevices of sea-cliffs and other inaccessible rocks.

Materials. Sticks of various sizes, lined with wool and hair.

Eggs, 5, 6. Gray-green, spotted and blotched with smoky brown.

CROW, *Corvus corone.*

Situation. Tops of trees in woods.

Materials. Sticks, the larger outside, the smaller inside; these latter plastered with mud, clay or cowdung; lined with wool and horsehair.

Eggs, 4, 5. Gray-green, blotched and spotted with smoky brown. "I have eggs, both of the crow and rook, of a clear blue, without spots."—*Mr. Bond.*

HOODED CROW, *Corvus cornix.*

Situation. In rocks and sea-cliffs in Scotland; sometimes in trees. "The hooded crow breeds in the islands of Loch Maddie in great abundance, building a nest very similar to that of the carrion crow, and laying four or five eggs rather smaller than the carrion crow's, and of a greenish blue colour, freckled with brown."—*Sir William Milner* (Zool. 2015).

Materials. Sticks, heather, wool.

Eggs, 4, 5. Gray-green, blotched and spotted with smoky brown.

ROOK, *Corvus frugilegus.*

Situation. The tops of tall trees, generally in the neighbourhood of

country mansions: this bird is gregarious: rooks build very early in the year, often in the winter: it is recorded (Zool. 868) that a pair laid in November; the female sat and the eggs were hatched about the 18th; the young ones died of cold. Mr. Norman relates that two pairs of rooks built nests and reared their young on the top of a house in Hull. Rooks have been induced to form a colony or rookery in a spot where it was desired, by taking the eggs out of a magpie's nest, and substituting those of a rook: the young rooks were brought up by the magpie, and next year established themselves in the same locality: Colonel Newman relates this interesting fact (Zool. 3327).

Materials. Large sticks, hay, straw, &c.

Eggs, 4, 5. Gray-green, spotted and blotched with smoky brown.

Note.—I am unable to define any difference in colour between the eggs of the raven, crow, hooded crow and rook.

JACKDAW, *Corvus monedula.*

Situation. Towers of churches, ruins, rocks, chalk-pits, hollow trees; sometimes in holes in the ground, especially rabbits' burrows.

Materials. Sticks, straw, large feathers.

Eggs, 4—8. Pale green-blue, spotted with dingy brown; the spots confluent at the larger end.

MAGPIE, *Corvus pica.*

Situation. In trees, generally tall ones, but sometimes in low bushes—even in gooseberry bushes.

Materials. The outer and upper portion of the nest, which is almost spherical and domed, is composed of thorny sticks and brambles; smaller and thornless sticks are inside these, and then follows a lining of clay, which in its turn is covered with fibrous roots and hay. There is a circular hole on the side, through which the birds enter: the incubating bird has its head pointing towards this hole. A popular belief gives a second hole to the magpie's nest, opposite the first; the object of this is supposed to be to allow the bird's long tail to pass out: I cannot corroborate this view.

Eggs, 6—8. Yellow-gray, speckled with yellow-brown.

JAY, *Corvus glandarius.*

Situation. In the thickest parts of woods.

Materials. Sticks, roots; small fibrous roots for lining.

Eggs, 5, 6. Pale greenish blue, very thickly sprinkled with minute brown spots, often confluent on the larger end, where there are generally three or four irregular black streaks.

GREEN WOODPECKER, *Picus viridis.*

Situation. In the trunk of a tree, particularly the aspen and black

poplar, in a hole which is frequently made by the bird itself, and is generally very round and of great depth.

Materials. None, except the particles of wood chipped off by the birds in the process of boring.

Eggs, 3, 4. White, with a slight tinge of blue. Mr. Newton (Zool. 2229) mentions eggs of the green woodpecker "spotted and blotched with reddish brown and tawny yellow." "These markings must have been accidental stains, as the eggs of the whole genus are white."—*Mr. Doubleday.*

SPOTTED WOODPECKER, *Picus major.*

Situation. In the trunk of a tree: the bird invariably plasters up with clay the hole in the tree in which the nest is built, only leaving a round hole just large enough to permit the passing of the bird.

Materials. The particles of wood chipped off by the bird.

Eggs, 4, 5. White, beautifully and delicately tinged with blue.

LESSER SPOTTED WOODPECKER, *Picus minor.*

Situation. A hole in the trunk of a tree, so small at the entrance that a larger bird cannot enter; chiefly in Herefordshire, Worcestershire and Gloucestershire.

Materials. Comminuted decayed wood.

Eggs, 5—7. White, tinged with pink.

WRYNECK, *Yunx torquilla.*

Situation. Holes in the trunks of trees; the hole sometimes lined with moss and feathers.

Materials. Comminuted decayed wood.

Eggs, 5—7. Pure white.

CREEPER, *Certhia familiaris.*

Situation. The hole of a tree.

Materials. Fine hay: Mr. Selby says also the inner bark of trees.

Eggs, 6. White, speckled with red-brown.

WREN, *Troglodytes europæus.*

Situation. Under the thatch of stables, outhouses, summer-houses, on the face of rocks, either exposed or clothed with ivy, on the ivy-clothed trunks of trees: the nest is completely domed, and has a small entrance-hole near the top. This little bird has credit for building a number of supplementary nests, for no other purpose except to roost in: it is certain a great many more nests are built than are required for purposes of incubation: such supplementary nests are always without lining, and are commonly called "cock's nests," and Mr. Duncan asserts (Zool. 382) that they are built by the male birds.

Materials. Principally moss and lichens, lined with feathers: always of the same colour as the substance to which it is attached.

Eggs, 6. White, tinged with yellow, and speckled at the larger end with red-brown.

NUTHATCH, *Sitta europæa.*

Situation. The hole of a decaying tree, especially apple: this bird invariably plasters up the hole with clay, leaving a small round opening.

Materials. The dried dead leaves of oak, apple, elm, &c., very carelessly arranged.

Eggs, 5—7. Pure white, spotted with red-brown, and not easily distinguished from those of the great titmouse, but they are generally larger.. "During incubation the female sits very close, and it is almost impossible to drive her from the nest; she defends it to the last extremity, striking with her beak and wings, and making at the same time a hissing noise."—*Mr. Selby.*

CUCKOO, *Cuculus canorus.*

Situation and Materials. The cuckoo makes no nest, but lays its eggs in the nests of other birds, particularly of the pied wagtail, meadow pipit, yellowhammer and hedgesparrow. See a most interesting account of a young cuckoo by Col. Newman: it was found in a hedgesparrow's nest, removed with the nest into a wicker cage, and there tended by the hedgesparrows (Zool. 3424).

Egg, 1, in a nest. Reddish gray, with a darker zone formed of very numerous confluent spots at the largest part; very variable.

KINGFISHER, *Alcedo ispida.*

Situation. A hole in a river-bank, generally three or four feet above the usual surface of the water: the hole excavated by the sand martin is often adopted.

Materials. The bones of fishes and nothing else (see Zool. 3578).

Eggs, 6, 7. Nearly round, white and shining: when quite fresh from the nest, and unblown, the yelk shows through the shell and gives a beautiful salmon-colour to the egg.

SWALLOW, *Hirundo rustica.*

Situation. In chimneys and under eaves of houses, outhouses, churches and stables. Some very excellent observers have stated that swallows do not commonly build in chimneys (see Zool. 147, 354, &c.); but this is certainly the general rule: how they can approve of such a smoky atmosphere is a problem I am unable to solve.

Materials. Mud or clay mixed with straw and hay, and lined with feathers: a rather large, loosely-built nest, always open at top: it

has none of the neatness for which the nest of the following species is so remarkable.

Eggs, 4, 5. White speckled with brown, generally forming a distinct zone at the larger end; the only British species of the family that has speckled eggs.

MARTIN, *Hirundo urbica.*

Situation. Under eaves of houses, string-courses, and other projections in churches, arches of bridges, upper angles of windows, face of chalk-pits, rocks and sea-cliffs.

Materials. Mud, neatly welded together, and forming a compact domicile, enclosed on all sides excepting a circular hole just large enough to admit the passage of the birds within the mud habitation; internally lined with straw, hay and feathers.

Eggs, 5, 6. White, tinged with pink, unspotted.

SAND MARTIN, *Hirundo riparia.*

Situation. At the extremity of deep holes, excavated by the bird itself, in sand-banks.

Materials. Hay, straw, feathers.

Eggs, 4, 5. White, unspotted.

SWIFT, *Cypselus apus.*

Situation. Holes in the towers and steeples of churches, sometimes under the eaves of inhabited houses.

Materials. Hay, straw, feathers in rather small quantities. "These materials are cemented together, and the inside of the nest is plastered with a viscid substance furnished by glands peculiar to certain birds of this genus."—*Mr. Selby.* I have no knowledge of the substance or glands alluded to by this eminent ornithologist.

Eggs, 2. White, unspotted.

NIGHTJAR, *Caprimulgus europæus.*

Situation. On the ground, on sandy heaths, particularly under shelter of the common brachen (*Eupteris aquilina*).

Materials. None.

Eggs, 2. Gray, spotted and marbled with dark brown and gray, very glossy. "The female, when sitting upon her eggs or young, squats so close and flat, besides remaining motionless, and her colours harmonize so well with the surrounding surface of the ground, that she is not readily seen, unless you happen to catch sight of her large lustrous dark eye; indeed, when the young are hatched she will almost let you tread on her before she attempts to rise."—*Zool.* 3654.

This bird is the cuckoo of those juvenile naturalists who write and

speak of the cuckoo incubating her own eggs and rearing her own young: I believe Mr. Selby was the first author who explained away these strange mis-statements.

Order III. RASORES.

Ring Dove, *Columba Palumbus.*

Situation. In fir trees, yew trees and ivy-clothed trees, also in ivy covering the surface of rocks. "Hundreds of nests are built in Epping Forest every year, in the branches of the pollard hornbeams and in oaks; and also in the pollard elms in hedge-rows."—*Mr. Doubleday.* "I have found many nests in the New Forest in old whitethorns."—*Mr. Bond.* "A ring dove had fixed her nest in a low furze-bush growing upon the slope of a considerable clay bank. The twigs with which the nest was formed were in some places curiously interwoven with the branches of the bush."—*Mr. Duncan.* Mr. Edward relates (Zool. 2644) that he found a ring dove's nest on the ground.

Materials. Sticks and twigs laid together in a loose and careless manner. I have often seen the eggs through the bottom of the nest.

Eggs, 2, white. The young of this species, and perhaps of the other doves, are fed with half-digested matter ejected from the crops of the parents. "In my morning rambles, last spring, I discovered a nest of a ring dove in a young Scotch fir, containing three eggs, one of them much less than the other two."—*Mr. Walmsley* (Zool. 222).

Stock Dove, *Columba Œnas.*

Situation. Cavities in the trunks of trees in Richmond Park, and elsewhere in the South and East of England, as Hertfordshire, Norfolk, Suffolk, Essex, Kent, Sussex and Surrey: also in rabbit-burrows. "The stock dove occupies the deserted rabbit-burrows upon warrens; it places its pair of eggs about a yard from the entrance, generally upon the bare sand, sometimes using a small quantity of dried roots, &c., barely sufficient to keep the eggs from the ground: besides such situations on the heaths, it nestles under thick furze-bushes which are impervious to rain, in consequence of the sheep and rabbits eating off the young and tender shoots as they grow; the birds always preferring those bushes that have a small opening, made by the rabbits, near the ground."—*Mr. Salmon.*

Materials. Sticks and roots.

Eggs, 2. White and shining.

Rock Dove, *Columba Livia.*

Situation. Fissures and ledges of sea-cliffs: I have observed this

bird breeding at Oban in Argyleshire, in the Isle of Mull, and some places on the west coast of Ireland.

Materials. Sticks and heath.

Eggs, 2. White.

TURTLE DOVE, *Columba Turtur.*

Situation. In very thick woods in the south-eastern counties of England, more especially Kent.

Materials. Twigs and sticks carelessly laid together.

Eggs, 2. White, very small compared with those of the ring dove and stock dove.

PHEASANT, *Phasianus colchicus.*

Situation. On the ground, amidst coarse grass and weeds, or in the scrub on the outskirts of woods: this bird is polygamous. Mr. Newton mentions (Zool. 4070) an instance of a pheasant occupying the drey of a squirrel in a Scotch fir: she hatched but did not rear her young; they were found dead in the nest.

Materials. Scarcely any, beyond the dried grasses among which it is placed.

Eggs, 8—13. Pale olive-green, unspotted.

CAPERCALLY, *Tetrao Urogallus.*

Situation. This bird was formerly abundant in Scotland, then became extinct, was reintroduced in 1838 on the domain of the Marquis of Breadalbane, and is now increasing.

Materials. Sticks and ling.

Eggs, 6—12. Pale red-brown, spotted and blotched with two shades of darker brown. "In 1829 I saw nine eggs of the capercally which were sent over from Norway to Lord Fife, to be hatched at Marr Lodge, Braemar. They were completely different in appearance from any other eggs of this interesting bird that have come under my notice. They were without any spots, and of a deep brown colour, with some scarcely perceptible yellow blotches."— *Rev. James Smith* (Zool. 2989). "All the eggs I have seen are exactly like those of the black grouse, except in size."—*Mr. Bond.*

BLACK GROUSE, *Tetrao Tetrix.*

Situation. On the ground on wild mountain heaths, particularly in wet or marshy places, where sundew is found: this bird is polygamous.

Materials. Ling, heath, grass; always sheltered by a tussock of coarse grass, a furze-bush or a bush of ling.

Eggs, 6—10. Gray, tinged with yellow-red, blotched with red-brown.

Red Grouse, *Tetrao scoticus.*

Situation. On mountain wilds in Scotland, North of England, Herefordshire, South Wales and Ireland. The Herefordshire habitat, known as the Black Mountain district, although so familiar to the sportsmen in the neighbourhood, seems to have escaped the notice of naturalists.

Materials. Ling, heath, bents, very little of either, the bird scratching a hole in which to lay her eggs. The hen bird only incubates, the cock remaining in the neighbourhood, and flying short distances before the intruder, to lead him away from the nest: as soon as the young come forth the cock and hen are equally assiduous in taking care of them.

Eggs, 7—13. Gray, sometimes white, blotched with umber-brown.

Ptarmigan, *Tetrao Lagopus.*

Situation. On the ground on the stony mountain tops of Scotland and islands adjacent.

Materials. None: the hen scratches the ground, and lays her eggs in the cavity thus formed.

Eggs, 7—15. Pale red-brown, blotched with two shades of darker brown.

Partridge, *Perdix cinerea.*

Situation. On the ground, in corn fields, standing grass, among weeds, &c., throughout all arable districts.

Materials. Nothing more than the stems of the corn-weeds growing in such places, scratched and trampled down.

Eggs, 10—20. Pale yellow-brown, unspotted: they are usually hatched about Midsummer Day, not the middle of July, as stated by most authors.

Redlegged Partridge, *Perdix rubra.*

Situation. On the ground in clover and corn fields in the eastern counties, particularly Norfolk and Suffolk. Mr. Newton mentions (Zool. 4073) an instance of a bird of this species building a nest and sitting on thirteen eggs on the thatch of a stack of barley.

Materials. Dried leaves, in addition to the crop, whatever it may be, in which the bird chooses its site.

Eggs, 12—18. Yellow-gray, spotted with red-brown.

Quail, *Perdix Coturnix.*

Situation. Generally in corn fields, among green corn.

Materials. None, unless the trodden and scratched blades of growing corn can be thus called.

Eggs, 12--20. Pale yellowish brown, speckled, spotted or blotched with brown.

Order IV. GRALLATORES.

STONE CURLEW, *Œdicnemus crepitans.*

Situation. On the ground, especially in the south-eastern counties of England.

Materials. Sometimes a very few bents and small straws.

Eggs, 2, 3. Testaceous-brown, blotched, spotted and streaked with lead-colour and umber-brown: pairs of eggs have often been found in the stony fallows at Aperfield, near Cudham, in Kent.

GOLDEN PLOVER, *Charadrius pluvialis.*

Situation. On mountain wilds and bogs in Scotland, the North of England, and Ireland.

Materials. Scarcely any, a few fragments of heather and dried grasses carelessly scraped together.

Eggs, 4. Cream-coloured, with large blotches of umber-brown of various shapes and sizes. The young bird is covered with down of two colours: it runs as soon as hatched.

DOTTERELL, *Charadrius morinellus.*

Situation. Summits of mountains in the North of England, "particularly those that are densely covered with the woolly fringe-moss (*Trichostomum lanuginosum*), which indeed grows more or less profusely on nearly all the most elevated parts of this alpine district."—*Mr. Heysham.* The particular hills on which the dotterell feeds are Helvellyn, Whiteside, Whatson Dod, Saddleback, Skiddaw, Carrick Fell, Grasmoor, Robinson, Gold Scalp and Great Gavel, on the Cumberland ranges; also Hoy in Orkney, and several localities in the Orkney Islands.

Materials. None: "they lay their eggs in a small cavity on dry ground covered with vegetation, and generally near a moderate-sized stone or fragment of rock."—*Mr. Heysham.*

Eggs, 3. Dark cream-colour or olive-brown, thickly blotched with dark brown or black.

RINGED PLOVER, *Charadrius hiaticula.*

Situation. On the sea-coast, among gravel or on sand near high-water mark. "Sometimes also on the links or sand-hills that line the coast, or even in a corn field, if immediately adjoining the shore."—*Mr. Selby.*

Materials. Dried grasses, and a very small quantity of them. "Often, perhaps generally, lined, or more properly speaking paved,

with small white stones, looking something like tessellated pavement; which not unfrequently remains perfect for a year or two after the young birds have left."—*Mr. Bond.*

Eggs, 4. Pale stone-colour, marked all over with small black and ash-coloured spots; they are invariably placed with the smaller ends together in the middle, thus occupying the least possible space. "In the spring of 1844, while staying on the Sussex coast, I found two nests of this bird, each with four eggs: I visited them at noon every day for nearly a week; I invariably found the bird on the nest, although the weather was very hot at the time. The parent bird, when disturbed, creeps along the shingle to the water's edge, and then flies a short distance, uttering its well-known cry."—*Mr. Channell* (Zool. 1202). It is said that the ringed plover exposes her eggs to the sun's rays at noon: I think the preceding quotation shows the fallacy of this assertion.

Kentish Plover, *Charadrius cantianus.*

Situation. On sand by the sea-coast of Kent and Sussex.

Materials. It makes no nest, but lays its eggs in a depression of the sand, and about the banks of shells which abound in some localities on the beach.

Eggs, 4. Pale testaceous-brown, spotted and streaked with black.

Lapwing, *Vanellus cristatus.*

Situation. On all waste grounds, whether upland or low marshes.

Materials. It makes a depression on the surface, lined with straws and bents.

Eggs, 4. Dark olive-brown, blotched with black-brown. May be bought in any quantities in the London markets, to which they are brought as articles of luxury. The eggs of rarer birds often occur amongst them, but it requires a perfect knowledge of eggs to fix on the species to which such accidentally-obtained eggs belong.

Oystercatcher, *Hæmatopus ostralegus.*

Situation. On the bare ground on our sea-coasts, especially of Lincolnshire.

Materials. A few bents and small stones regularly arranged.

Eggs, 3, 4. Stone-colour, blotched with dark brown and gray: sometimes streaked: they are invariably placed with the smaller ends in the middle.

Heron, *Ardea cinerea.*

Situation. The tops of high trees, almost invariably in societies called heronries, in one station only (in Pembrokeshire), on cliffs facing the sea.

Materials. Sticks in large quantities, the interior lined with wool and sometimes rags.

Eggs, 4, 5. Pale greenish brown.

BITTERN, *Ardea stellaris.*

Situation. On the ground in marshy places, always near the water's edge, amongst dense masses and clusters of reeds and flags.

Materials. A few sticks, with abundance of dead reeds, flag-leaves and Carices.

Eggs, 4, 5. Pale greenish brown.

CURLEW, *Numenius arquata.*

Situation. On the ground, generally sheltered by heath, ling, or clumps of Carex or rush, in a cavity scraped out by the parent.

Materials. Dried heather, rushes or Carices.

Eggs, 4, the points meeting in the centre, pale olive-green, blotched with brown of two shades. The young, which run as soon as hatched, are covered with down, and do not possess the long curved beak of the parents.

WHIMBREL, *Numenius phæopus.*

Situation. On the ground in exposed heathy districts, on the Grampians, in Scotland, in the Orkney Islands, Shetland Islands, &c.

Materials. Dried heather and grass.

Eggs, 4. Dark olive-green, blotched with dark umber-brown.

REDSHANK, *Totanus calidris.*

Situation. On the summit of a tussock of grass or Carex, or on the ground in moist meadows.

Materials. Fine dried grass, in small quantities.

Eggs, 4. "Egg pale yellowish straw-colour, the dark spots often forming a zone at the larger end."—*Mr. Doubleday.*

COMMON SANDPIPER, *Totanus hypoleucos.*

Situation. "It breeds upon the banks of rivers or lakes, taking care to make its nest beyond the reach of the usual floods; and frequently, should a corn field approach the edge of the water, it will retire within it. The immediate site of the nest is generally under a projecting tuft of grass or rush, where it scrapes rather a deep hole in the ground."—*Mr. Selby.*

Materials. The deep hole mentioned by Mr. Selby is lined with fine dried grass and leaves.

Eggs, 4. "The eggs are four in number, and not five, as stated by some authors; they are of a cream-yellow colour, with numerous spots of dark brown upon the surface, and others of a lighter hue appearing as it were underneath the outer shell."—*Mr. Selby.*

This elegant little bird is called the snipe and summer snipe, and is the species to which all the stories of snipes settling on rails, gates, &c., may be unhesitatingly referred. This very excusable mistake has occasioned a rather acrimonious and most amusing controversy in that excellent sporting newspaper 'The Field.'

GREENSHANK, *Totanus glottis.*

Situation. "I once found a nest of this bird in the island of Harris; it was at a considerable distance from the water."—*Mr. Macgillivray.*

Materials. * * * "and consisted of a few fragments of heath and grass, placed in a hollow cavity scraped in the turf in an exposed place: the nest in fact resembled that of the golden plover, the curlew or the lapwing."—*Mr. Macgillivray.*

Eggs, 4. "The eggs, placed with their narrow ends together, were four in number, pyriform, larger than those of the lapwing and smaller than those of the golden plover, equally pointed with the latter, but proportionally broader and more rounded at the larger end than either. The dimensions of one of them were two inches exactly, by one inch and three-eighths: the ground-colour is a very pale yellowish green, sprinkled all over with irregular spots of dark brown, intermixed with blotches of light purplish gray, the spots and especially the blotches more numerous at the larger end."—*Mr. Macgillivray.* "The egg is larger than that of the redshank by six lines in length and four in breadth: it is of a pale greenish white colour, blotched and spotted with ferruginous and dull red, chiefly at the larger end."—*Sir Wm. Milner* (Zool. 2016). Sir W. M. E. Milner states (Zool. 2230) that he subsequently had three eggs sent him from the same locality, like the first in size but considerably more coloured, being nearly the same colour as the peewit's, but very different in shape, being pyriform. "Very variable in ground-colour; some are cream-coloured."—*Mr. Bond.*

AVOCET, *Recurvirostra Avocetta.*

Situation. Colonel Montagu says that this beautiful bird breeds in the fens of Lincolnshire, and also in Romney Marsh: whatever may have been the case formerly, it certainly does so no longer.

Materials. None are mentioned.

Eggs, 2, 3. "It lays two eggs, about the size of those of a pigeon; white, tinged with green and marked with large black spots."—*Col. Montagu.* "The nest is said to be made in a small hole in the drier parts of extensive marshes: the eggs are said to be only two in num-

ber, of a clay-coloured brown, spotted and speckled with black, about two inches in length, by one inch and a half in breadth."—*Mr. Yarrell.* "Colonel Montagu never could have seen the eggs of the avocet; they are as large as those of the peewit."—*Mr. Bond.*

Blacktailed Godwit, *Limosa melanura.*

Situation. A few pairs of this bird breed in the fenny districts of Lincolnshire, Cambridgeshire and Norfolk, making their nest in thick herbage, and always near water.

Materials. "The nest is composed of dry grass and other vegetables, and is concealed among coarse herbage of the swamps and low meadows."—*Mr. Yarrell.*

Eggs, 4. Deep olive-green colour, faintly blotched with spots of a darker shade.

Ruff. *Machetes pugnax.*

Situation. "The nest is usually formed upon a stump in the most swampy places, surrounded by coarse grass."—*Col. Montagu.*

Materials. None brought to the spot, the coarse grass growing there being the only substance used.

Eggs, 4. "The eggs are, as usual with its congeners, four in number; these are so nearly similar in colour to those of the snipe and redshank, both of which breed in the same wet places, and make similar nests, that some experience is required to discriminate them: they are, however, superior in size to the former, and are known from the latter by the ground being of a greenish hue instead of rufous-white; but individuals assimilate so nearly to each other as not to be distinguished, especially as the dusky and brown spots and blotches are similar."—*Col. Montagu.*

Woodcock, *Scolopax Rusticola.*

Situation. In underwood at the foot of a tree: the bird generally scrapes out a slight hole in the ground, and without much attempt at concealment.

Materials. Dead leaves and dried fronds of the common brake (*Eupteris aquilina*).

Eggs, 4. Yellow-white, blotched with pale chestnut-brown.

The woodcock frequently but not habitually nests in this country: this occurrence seems accidental and exceptional: the eggs are very rarely found, the young more frequently: the young ones run as soon as hatched, and the old birds are most assiduous in caring for them, often transporting them from place to place with their feet. For instances of the woodcock breeding in England almost every volume of the 'Zoologist' may be consulted.

COMMON SNIPE, *Scolopax Gallinago.*

Situation. On the ground on the elevated moors of the North of England and highlands of Scotland, and usually under a tuft of sedge or grass.

Materials. The snipe makes a slight depression in the earth, and lines it with withered grass and dried heather.

Eggs, 3, 4. Gray, tinged with yellow or olive-green, and blotched with umber-brown of two shades: they are invariably placed with the small ends together in the middle. The great mass of snipes frequenting this country in the winter leave us in the spring and breed in the North of Europe. "The eggs of this bird are very variable in ground-colour; sometimes dark olive-brown, sometimes dark cream or stone-colour."—*Mr. Bond.*

DUNLIN, *Tringa variabilis.*

Situation. On the sea-beach, among shingle at the mouth of rivers in Scotland; sometimes also in salt-marshes, and very rarely in mountain bogs.

Materials. A few straws or bents.

Eggs, 4. Of an olive-green or green-gray colour, blotched all over with umber-brown. "Very variable in ground-colour; pale olive-green and cream-colour of various shades."—*Mr. Bond.*

LANDRAIL, *Gallinula Crex.*

Situation. On the ground in meadows and underwood, sometimes in fields of standing corn, generally making a slight cavity.

Materials. Grass, sometimes leaves.

Eggs, 10—15. Dingy white, tinged with rosy pink, and freckled and spotted with red-brown: the young are covered with silky brown down, and run as soon as hatched.

SPOTTED CRAKE, *Gallinula porzana.*

Situation. On the ground in bogs and marshes, generally in the water, that is, so placed that the water permeates the lower part of the nest.

Materials. Flags, sedges, reeds, rushes, sometimes Potamogetons, often forming a very large mass, apparently disproportioned to the size of the bird, but having a cup-shaped depression in the middle, dry, and neatly lined with the same materials only finer.

Eggs, 8—10. Gray, tinged with pink, and spotted with umber-brown of two shades. "The young take the water as soon as hatched."—*Col. Montagu.* "They are of a dark bottle-green colour."—*Mr. Bond.*

Moorhen, *Gallinula chloropus.*

Situation. I have taken great interest in observing the nesting places of this common and familiar bird, which lives with us, like the pheasant, in a semi-domestic state, seeming to prefer the companionship of man with all its dangers. I have seen the moorhen's nest high up in a spruce fir, resting on lateral branches, sometimes close to the bole, and sometimes so near the end as to swing with every breeze; then I have found it on the long horizontal boughs of willows that actually dipped the water and floated on the surface; again on the top of a pollard willow; again on the summit of a tussock of Carex or Aira cæspitosa, and very often indeed among the sedges on the banks of streams and ponds.

Materials. The nest is formed of a huge mass of flags and reeds matted and woven and sodden together.

Eggs, 8—10. Pale testaceous-brown, spotted with testaceous-brown and umber-brown. When the bird leaves the nest she covers the eggs with flags and reeds: the young, which are covered with black hairy down, take to the water immediately on leaving the egg-shell.

Water Rail, *Rallus aquaticus.*

Situation. Under thick cover in osier-beds, and swamps in which alders grow, more especially in the South of England.

Materials. Sedges and flags in considerable quantities.

Eggs, 6—9. "Of a spotless white and very smooth, rather larger than those of a blackbird; the shape a short oval, with both ends nearly alike."—*Col. Montagu.* "Cream-coloured white, with small specks of ash-gray and reddish brown."—*Mr. Yarrell.* Temminck says the eggs vary from 10 to 12 in number, and are yellow-white, spotted with red-brown. Mr. Hewitson figures something answering this description. "The eggs are well known. I have seen the nest *in situ* at Whittlesea Mere: Hewitson's figure is quite correct: I think Montagu's nest must have belonged to some other bird. I have seen scores of eggs—not a pure white one among them—always creamy white, with more or less small reddish dots and spots. I have the young, which is dark bottle-green, similar to the young of the moorhen, spotted crake and Baillon's crake: I have the very young of all these species now before me: not one is really black."—*Mr. Bond.*

Coot, *Fulica atra.*

Situation. In marshes and ponds.

Materials. Decaying reeds, flags, sedges and rushes. "I have examined many of their nests: they are large, and, at first sight,

apparently clumsy, but are amazingly strong and compactly put together; they are sometimes built on a tuft of rushes, but more commonly among reeds: some are supported by those that lie prostrate in the water, whilst others have their foundations at the bottom, and are raised till they become from six to twelve inches above its surface sometimes in a depth of one and a half to two feet of water."—*Mr. Hewitson.* The nests are frequently washed from their foundations by floods, and then float on the surface of the water, and are driven by the wind to the shore; the hen bird, if incubating at the time, exhibits no disapprobation of this change of position, but continues assiduously to perform her parental duties.

Eggs, 7—10. Gray, tinged with green, speckled and spotted with brown, the spots very few, less numerous and darker than the speckles. "The young, when excluded, are clothed with a harsh black down, tipped with gray; having the base of the beak and forehead covered with small scarlet appendages, and the occiput surrounded with a circle of yellow hairy down."—*Mr. Selby.* "I think the young of the coot has more red and yellow on the neck and back than in Mr. Selby's description: the body is sooty black."—*Mr. Bond.*

Rednecked Phalarope, *Phalaropus hyperboreus.*

Situation. Breeds in the Orkney Islands, and always near the sea. "The nests were placed in small tufts of grass growing close to the edge of the loch: they were formed of dried grass, and were about the size of that of a titlark, but much deeper. The eggs are considerably smaller than those of the dunlin, and are beautifully spotted all over with brown."—*Mr. Salmon.*

Materials. Grasses and sedges.

Eggs, 4. Olive-green, thickly spotted with dark brown.

Order V. NATATORES.

Graylag Goose, *Anser ferus.*

Situation. "It breeds amongst rushes and other coarse herbage, making a large nest of vegetable matter, and laying from six to twelve eggs of sullied white."—*Mr. Selby.* "On Loch Maddie we saw a few pairs of the graylag goose, and found one egg which is rather smaller than that of the bean goose, and more pointed at the smaller end."—*Sir William Milner* (Zool. 2015).

Bean Goose, *Anser Segetum.*

Situation. "This bird, which I take to be the common wild goose, certainly breeds in the western islands of Scotland, and also in the Highland lochs of Scotland, always in the vicinity of water." Sir

W. M. E. Milner has favoured me with the following note:—"Upon Loch Laighall, in Sutherlandshire, we found several pairs of the bean goose breeding, and procured their eggs, which are smaller than those of the common goose, but of a similar shape and colour. They generally lay from six to eight eggs, but are so constantly robbed that they are leaving Loch Laighall, and are betaking themselves to the islands on the smaller lakes, which from their situation are inaccessible to man, as no boat can be brought to them. After their nests have been robbed they never lay again."—*Zool.* 2014.

Materials. Sedges, flags, rushes, grasses, generally in large masses.

Eggs, 8—12. White.

COMMON SHIELDRAKE, *Anas Tadorna.*

Situation. This bird occasionally, perhaps frequently, breeds in this country, selecting those parts of the sea-shore which, in the North of England and in Scotland, are so frequently honeycombed by rabbits; these excavations they enlarge, and often place their nest ten or twelve feet from the entrance.

Materials. Dried flags, sedges, reeds, &c., for the exterior; the lining always composed of down plucked from their own bodies.

Eggs, 12—16. Of a roundish oblong form, having a very smooth shell and being cream-coloured.

SHOVELLER, *Anas clypeata.*

Situation. This bird is said to breed in Norfolk, Lincolnshire, Cambridgeshire and Scotland: it always selects that part of marshes farthest removed from the observation of man.

Materials. Flags, sedges, reeds.

Eggs, 8—12. White, manifestly tinged with green.

WILD DUCK, *Anas Boschas.*

Situation. In some spot in the marshes rather drier and more elevated than the surrounding flat, but sufficiently near to the water for the hen bird to lead her ducklings to the water immediately on being hatched. There are, however, many exceptions to this usual site of the duck's nest, and we occasionally find them built on pollard willows, or occupying a deserted crow's nest in a tree, and even on church-towers: the problem "how does the duck, breeding in such situations, convey its ducklings to the water?" has been discussed in the pages of the 'Zoologist' with much eagerness and a good deal of talent: it has been contended that she carries them one by one in her feet, in her beak, under her beak, &c.; and several writers have insisted, certainly contrary to fact, that these elevated nests are always so placed that the ducklings, when hatched,

may fall at once into the water: the subject is one which still requires the most careful observation: as a simple fact this habit of wild ducks is perfectly familiar to the inhabitants of Lapland, "in which country cylinders of wood stopped at both ends, and having a hole in the side, are elevated on poles, purposely to entice wild ducks to build in them: these birds are not slow to avail themselves of this accommodation, and the Laplanders thus reap a harvest of duck's eggs. The hawk-owl, however, often dispossesses the duck, appropriates the cylinders, and pays a felon's penalty to the owner."—*Linnæus.* These observations refer perhaps more especially to the goldeneye; but several species have the same or a similar taste in nidification.

Teal, *Anas Crecca.*

Situation. Marshes in Scotland and the North of England, very rarely in the South, particularly selecting sites in which rushes are abundant.

Materials. Large quantities of dried or decaying flags, sedges and other water plants, lined with feathers.

Eggs, 8—10. White, without any tinge of blue.

Eider Duck, *Anas mollissima.*

Situation. On the ground on the coast of Northumberland, the Fern Islands, Coquet Islands, Western Islands of Scotland, &c. Mr. Selby, who has repeatedly visited the Fern Islands for the purpose of studying these birds, gives the following account of them:—"About April they are seen assembling in small groups along the shores of the mainland, from whence they cross over to the islands in May, soon after which the females begin to prepare their nests, and they usually commence laying about the 20th of that month. The males, as soon as this takes place and incubation commences, leave the females, and again spread themselves along the shore, in companies of four or five together."

Materials. "The nest is composed of dried grasses mixed with a quantity of the smaller Algæ, and as incubation proceeds (and which lasts for a month) a lining of down, plucked by the bird from her own body, is added. This addition is made daily, and at last becomes so considerable a mass as to envelope and entirely conceal the eggs."—*Mr. Selby.*

Eggs, 5. "The usual number of eggs is five, of a pale asparagus-green colour, of an oblong shape, and not much less than those of a goose. * * The young, as soon as hatched, are conducted to the water, which in some instances must be effected by the parent con-

veying them in her bill, as I have often seen the nest in such situations as to preclude the possibility of their arriving at it in any other way, and indeed the keeper of one of the lighthouses assured me that he had seen the bird engaged in this interesting duty."—*Mr. Selby.*

Redbreasted Merganser, *Mergus Serrator.*

Situation. On the ground on the borders of lakes, or on lake-islands in Scotland, especially Loch Awe: the nest is a few yards above the highest water line, "frequently," says Mr. Selby, "beside a large stone covered with brambles and coarse herbage, or under the shelter of some thick bush."

Materials. Dried grasses and rushes, and fibrous roots with abundance of the bird's feathers and down, the last increased in quantity as incubation advances.

Eggs, 7—11. White or cream-coloured, tinged with brown.

Goosander, *Mergus Merganser.*

Situation. Mr. John Macgillivray says that the goosander breeds in the outer Hebrides, on the borders of lakes, and sometimes on the sea-coast: he mentions Loch Maddie, in North Uist. Mr. Low also says it breeds in the Orkneys.

Materials. "The nest is constructed of a mass of grass, roots and other materials, mixed and lined with down."—*Mr. Selby.*

Eggs, 12—15. Cream-coloured, equally blunt at both ends.

Great Crested Grebe (or Loon), *Podiceps cristatus.*

Situation. Floating on the surface of fresh-water lakes or ponds, especially amongst reeds, in the eastern and northern counties of England, particularly Norfolk, Lincolnshire and Cheshire.

Materials. It collects an enormous quantity of flags, reeds, and, Mr. Selby says, the stems of the water-lily.

Eggs, 3, 4. White, tinged with green.

Eared Grebe, *Podiceps auritus.*

Situation. Floating on the surface of water in the fens of Lincolnshire.

Materials. Flags and other aquatic plants.

Eggs, 4, 5. Little or nothing is known of the breeding of this bird in Britain. Col. Montagu mentions the foregoing facts.

Little Grebe, *Podiceps minor.*

Situation. Floating on the surface of ponds.

Materials. Decayed flags, reeds, Potamogetons, &c., forming immense masses.

Eggs, 5, 6. At first white, by degrees becoming dingy and dirty,

as if stained by the decaying flags: the female, on leaving the nest, covers the eggs with flags, &c., to conceal them.

REDTHROATED DIVER, *Colymbus septentrionalis.*

Situation. Mr. Low says that it breeds in the Orkney Islands, in a lake among the hills of the Isle of Hoy, and that the nest is so situated that the bird can step from the nest into the water. "Between Tongue and Altrehara, on the 20th May, we procured a fine specimen of the redthroated diver on a small pool near the road-side. A single egg was deposited close to the water's edge, and on skinning the bird a second egg was found ready for extrusion."—*Sir William Milner* (Zool. 2014).

Materials. It is formed of moss and the stems of aquatic plants.

Eggs, 2. Olive-brown or olive-green, with a few black spots.

GUILLEMOT, *Uria troile.*

Situation. On the ledges of sea-cliffs in a great number of stations all around our coasts. I may particularly mention Beachy Head. "Here the egg-collectors frequently obtain twelve or fourteen dozen of guillemot's eggs of a morning, and sell them readily at sixpence each. These men are lowered down the cliff by means of a derrick, which is simply a thick pole, with a wheel in one end of it for the rope to run over, and protruding about two feet from the edge of the cliff: through the other end of the pole a hole is bored, and through this an iron bar is driven firmly into the ground to keep it steady."—*Zool.* 1193. See also 'Letters of Rusticus.'

Materials. None: the bird makes no attempt at nest-building, but lays its eggs on the bare rock.

Egg 1. Very large, and disproportionately large at one end, the other end tapering; ground-colour bright blue-green or white, blotched with black or black-brown: rarely wood-brown, spotted, and sometimes beautifully streaked with fine wavy lines all over the egg. The young, when hatched, are thickly covered with down, dark above and light beneath: they remain on the rock for some weeks.

BRUNNICH'S GUILLEMOT, *Uria Brunnichii.*

Situation. On sea-cliffs in the Island of Soa, one of the St. Kilda group.

Materials. None.

Egg, 1. "Bright green, not spotted or blotched, but streaked."—*Sir W. Milner.* "They are sometimes spotted and blotched, but do not appear to vary so much as those of the common guillemot."—*Mr. Bond.*

Ringed Guillemot, *Uria lacrymans.*

Situation. Sea-cliffs at Borrera, one of the St. Kilda group.

Materials. None.

Egg, 1. "Bright green, covered with irregular lines of brownish black."—*Sir W. Milner.* The late Mr. John Wolley, whose untimely loss all ornithologists sincerely deplore, expressed (Zool. 3477) a very strong opinion that this bird is not distinct from the common guillemot; and I know of no one more capable of forming a sound judgment on such a point.

Black Guillemot, *Uria grylle.*

Situation. In holes or under rocks in Orkney, Shetland and St. Kilda; in very small numbers, in the Isle of May, Firth of Forth.

Materials. "None whatever, its egg being laid in holes or crevices in the rocks, and sometimes under stones or rather masses of rock."—*Mr. Bond.*

Egg 1. Bluish white, speckled with black and ashy gray.

Puffin, *Mormon fratercula.*

Situation. It burrows in the ground, or adopts as its own the burrows of rabbits, in the immediate neighbourhood of the sea. Pembleton Island, near Anglesea, Isle of Man, Isle of Wight, &c.: it also frequently breeds in fissures of sea-cliffs: see especially, on this point, the 'Letters of Rusticus,' and a paper 'On Sea-fowls Breeding in Moray Firth,' by the Rev. James Smith (Zool. 2905). Mr. Smith says that the fissures in which these birds breed are very narrow and frequently long. "They extend a considerable way into the rock, and are generally horizontal, but occasionally vertical. Especial care seems to be taken by the bird against all such among them as may be liable to be reached by the waves, even when the tide is at the very highest. There is in this case but little appearance of a nest; but, when incubation is well advanced, a few grasses will be usually observed intermixed with a sprinkling of feathers from the bird. In such fissures as these the nest can only be reached by means of a stick. The bird sits very closely and determinedly upon it; will not be induced to quit it except by force, and with its singularly constructed and formidable beak bites most severely in its defence."

Materials. None, the egg being placed on the bare earth at the extremity of the burrow.

Egg, 1. Gray, with a dingy tinge and a few brown specks.

Razorbill, *Alca torda.*

Situation. On sea-cliffs; sometimes in holes.

Materials. None.

Egg, 1. White, blotched and spotted with black or brown.

Cormorant, *Carbo cormoranus.*

Situation. The ledges of sea-cliffs, as Freshwater, Isle of Wight, and many other localities.

Materials. Sticks and dead sea-weeds.

Eggs, 5. Whitish, tinged with green. The young are born blind and naked, but soon acquire a clothing of black down: they are six weeks before they can leave the nest. I have seen them in all stages on the face of the cliff at Freshwater by lying down and looking over from the summit: the smell from these birds, while nesting, is exceedingly offensive.

Shag, *Carbo cristatus.*

Situation. "Ledges and apertures on the face of sea-cliffs, not uncommonly on the coasts of Scotland and Ireland: also in the Isle of Portland; formerly in the Isle of Wight, and plentifully in the Isle of Man."—*Mr. Bond.*

Materials. "A considerable quantity of sea-weed, lined with the finer species and dried grass."—*Mr. Hewitson.*

Eggs, 4, 5. "The eggs, like those of the cormorant, are outwardly of a soft chalky substance, which is easily scraped off, leaving a hard greenish shell beneath. When fresh-laid they are white, but soon become daubed and stained all over, like the eggs of the grebe, by the materials of which the nest is formed."—*Mr. Hewitson.*

Gannet, *Sula bassana.*

Situation. On rocks, as Ailsa Craig in the Firth of Clyde, the Island of St. Kilda, the Bass Rock in the Firth of Forth, Souliskerry near the Orkneys, and the Skelig Islands on the Irish coast. "Upon the precipitous rocks of these islands they breed in innumerable multitudes, occuping all the ledges and summits wherever they can find sufficient space for a nest."—*Mr. Selby.* The gannets nesting on Borrera, one of the St. Kilda group, are so numerous as to give it quite the appearance of a chalk-cliff.

Materials. Principally sea-weeds, but often various kinds of rubbish found floating on the ocean.

Egg, 1. White, but it soon becomes dirty with being trodden on. "The young, when hatched, are naked, their skin smooth and bluish black, but covered in a few days with a white down, which growing rapidly soon becomes very thick, giving them in this state the appearance of large powder-puffs or balls of cotton."—*Mr. Selby.* See also Colonel Montagu's account.

Sandwich Tern, *Sterna cantiaca.*

Situation. On the ground in the Fern and Coquet Islands, on the

coast of Northumberland. "Here a station is selected apart from the other species, generally on a higher site; and the nests are so close to each other as to render it difficult to cross the ground without breaking the eggs or injuring the unfledged young." — *Mr. Selby.* The bird makes a shallow cavity among the sea campion, which abounds on these islands.

Materials. None, the eggs being laid on the bare ground.

Eggs, 3, 4. "Of a cream or wood-brown colour, blotched with dark brown and black, and with other spots of a lighter shade appearing as it were beneath the shell. The common varieties of them are either with fewer spots and blotches upon a white ground, or of a deep oil-green, with spots of a darker shade."—*Mr. Selby.* "I have seen vast numbers, but never saw one with any green in it."—*Mr. Bond.*

Roseate Tern, *Sterna Dougallii.*

Situation. On the ground in the Fern Islands off the coast of Northumberland, and the islands of the Firth of Clyde.

Materials. None, the bird only scraping a hole in the sand.

Eggs, 3, 4. Cream-colour or pale umber-brown, blotched with two shades of darker brown.

Common Tern, *Sterna Hirundo.*

Situation. On the ground in the islands of the Firth of Clyde, Solway Firth and the Western Islands.

Materials. It scrapes a hole in the sand above high-water mark, and arranges therein a few dry bents.

Eggs, 3. Various in the ground-colour, being olive-brown, umber-brown, and even cream-coloured, always blotched with two shades of brown.

Arctic Tern, *Sterna arctica.*

Situation. On the bare ground in the Fern Islands, on the coast of Northumberland. "The colony occupies a large spot on the islet selected, and the eggs are placed so near to each other as to render it difficult to traverse the site without crushing some of them." — *Mr. Selby.*

Materials. The bird only scrapes a hole in the sand, and arranges therein a few dry bents.

Eggs, 2, 3. The ground-colour olive-brown, with darker blotches. "The ground-colour is nearly as variable as that of the egg of the common tern. I have one specimen white, with a few minute black spots."—*Mr. Bond.*

Lesser Tern, *Sterna minuta.*

Situation. On the bare ground in several distant parts of the

kingdom; on the coast of Lincolnshire, especially about Skegness; on the coast of Northumberland, and on both sides of the Firth of Forth.

Materials. None, the bird merely scraping a hole in the sand.

Eggs, 2, 3. "Yellowish stone-colour, spotted with black-brown and gray, the spots thickest at the larger end: they do not vary much."—*Mr. Doubleday.*

BLACK TERN, *Sterna nigra.*

Situation. In sedgy places in the fens of Cambridgeshire, Lincolnshire, and Romney Marsh on the coast of Kent.

Materials. "About the middle of May this species prepares a nest of flags or broad grass in the most marshy places, upon a tuft just above the water."—*Col. Montagu.*

Eggs, 4. Olive-brown, blotched with umber-brown. "Variable in ground-colour, more frequently pale olive-brown, blotched with darker brown."—*Mr. Bond.*

BLACKHEADED GULL, *Larus ridibundus.*

Situation. In tussocks of sedge at Palisbourne in Northumberland, and in the fens of Lincolnshire.

Materials. "The gulls trample down the grass on the tops of the tussocks, and thus form a place on which they deposit their eggs, and sit isolated each on his own little island, about a foot or more above the surface of the water or swamp. Thus raised from the surface, they are seen at a considerable distance, and easily observe the approach of an enemy."—*Col. Montagu.*

Eggs, 3, 4. Pale olive-green or pale umber-brown, blotched with black-brown or dark gray. "Very variable in ground-colour, sometimes bluish white."—*Mr. Bond.*

KITTIWAKE, *Larus tridactylus.*

Situation. On sea-cliffs at Flamborough Head in Yorkshire, the Fern Islands on the coast of Northumberland, Fowls Heugh near Stonehaven, the Bass Rock and the Isle of May in the Firth of Forth, Ailsa Craig in the Firth of Clyde, and many other similar situations. At Fowls Heugh they are said to breed in vast numbers, but never in the Isle of Wight, as Mr. Yarrell supposed. "At Buraforth, a fishing station belonging to Mr. Edmonston," one of their breeding stations, "the ledges of the rocks were to a great extent whitened with their numbers, as much as they would have been by a fall of snow."—*Mr. Hewitson.*

Materials. The birds collect dry sea-weed and dry grass, and arrange it very carelessly on narrow ledges on the face of the cliffs.

Eggs, 2. Gray, blotched with darker gray and red-brown: often beautifully zoned at the larger end.

COMMON GULL, *Larus canus.*

Situation. "At St. Abb's Head, a bold and rocky headland of Berwickshire, these birds are very numerous in the breeding-season, and occupy the whole face of the cliff."—*Mr. Selby.*

Materials. Sea-weed, dry grass, &c.

Eggs, 2, 3. "The eggs, two and sometimes three in number, are of a pale oil-green or a yellowish white colour, blotched irregularly with blackish brown and gray."—*Mr. Selby.*

LESSER BLACKBACKED GULL, *Larus fuscus.*

Situation. On the ground or in hollows or depressions of the rocks on the coast of Northumberland and St. Kilda.

Materials. Dried grass, sometimes intermixed with sea-weed, generally comprising altogether a considerable mass.

Eggs, 3. Olive-brown or light testaceous-brown or stone-colour, spotted and blotched with brown of two shades: very variable.

HERRING GULL, *Larus argentatus.*

Situation. On sea-cliffs and rocky islands near the coast of Wales, St. David's Headland, the Isle of Wight, St. Kilda, &c.

Materials. Dry grasses and fern (*Eupteris aquilina*).

Eggs, 3. Stone-colour; rarely light olive-brown, with darker brown spots. "This bird is easily domesticated, and breeds in confinement."—*Zool.* 1385.

GREAT BLACKBACKED GULL, *Larus marinus.*

Situation. On the ground on the Steep Holmes and Lundy Island in the Bristol Channel, Souliskerry in the Orkneys, the Bass Island in the Firth of Forth, St. Kilda, &c.

Materials. Sea-weed and dry grass in large quantities.

Eggs, 3. Stone-colour; rarely light olive-brown, blotched with black-brown.

COMMON SKUA, *Lestris catarractes.*

Situation. On the ground on wild heaths in the Shetland Islands, breeding in companies on the hills called Foula and Ronas, on the main island; and also on the small island of Unst.

Materials. Dried grass and dry ling.

Eggs, 2. Dark olive-green or olive-brown, blotched with black-brown, intermixed with a few small whitish spots.

RICHARDSON'S SKUA, *Lestris Richardsoni.*

Situation. On the ground on wild heaths, both in the Orkney and Shetland Islands, breeding in companies.

Materials. Dried grass and moss.

Eggs, 2. Dark olive-green or brown, with irregular blotches of darker brown.

Fulmar Petrel, *Procellaria glacialis.*

Situation. Sea-cliffs in the St. Kilda Islands.

Materials. Generally a small quantity of thrift and dried grass.

Egg, 1. White. Sir Wm. Milner in the 'Zoologist,' Mr. Hewitson in his 'Oology,' and Mr. Macgillivray in the 'Edinburgh New Philosophical Journal,' have severally given some account of the nesting of the fulmar. I quote from Mr. Macgillivray's: — "The fulmar exists in St. Kilda in almost incredible quantities, and to the natives is by far the most important production of the island. It forms one of the principal means of support to the inhabitants, who daily risk their lives in its pursuit. The fulmar breeds on the face of the highest precipices, and only such as are furnished with small grassy shelves, every spot of which, above a few inches in extent, is occupied by one or more of its nests. The nest is formed of herbage, seldom bulky, generally a mere shallow excavation in the turf, lined with dried grass and the withered tufts of the sea-pink, in which the bird deposits a single egg, of a pure white colour when clean, which is seldom the case, and varying in size from 2 inches 7 lines to 3 inches 1 line in length, by 2 inches in breadth. On the 30th June, having partially descended a nearly perpendicular precipice 600 feet in height, the whole face of which was covered with nests of the fulmar, I enjoyed an opportunity of watching the habits of this bird, and describe from personal observation. The nests had all been robbed about a month before by the natives, who esteem the eggs of this species above all others. Many of the nests contained each a young bird a day or two old at the farthest, thickly covered with long white down. The young birds were very clamorous on being handled, and vomited a quantity of clear oil, with which I sometimes observed the parent birds feeding them by disgorging it."

Manx Shearwater, *Puffinus Anglorum.*

Situation. On the ground in the Orkney Islands and Scilly Islands.

Materials. A little dried fern: the bird scratches a hole between two stones or in crevices of the rocks, or makes a burrow in the sand. "The egg is frequently deposited on the fine sandy soil without any preparation, though generally there is a slight accumulation of fern-leaves and old stems. They produce but one egg, which, when laid, is of the most dazzling whiteness, and of peculiarly beautiful texture." —*Mr. Mitchell in Mr. Yarrell's 'History of British Birds.'*

Egg, 1. White, the size of a hen's egg, but blunt at both ends.

Forktailed Petrel, *Thalassidroma Leachii.*

Situation. On the ground in St. Kilda, the Orkney Islands, &c.

"Not far from the top of the cliff were a colony of the forktailed petrel, breeding under the stones and rocks about a yard deep: we were first attracted to them by a low chirping noise, which from time to time the females made while sitting on their eggs. In one hole only did we find the male and female together. The egg is considerably larger than that of the storm petrel, and resembles it in being surrounded at the larger end with a beautiful zone of red freckles. They are nearly three weeks before the storm petrel in depositing their eggs, and in the localities where we found the forktailed petrel there was not a single storm petrel."—*Sir William Milner* (Zool. 2059).

Materials. None: it breeds in sandy burrows and crevices of sea-cliffs.

Egg, 1. White, with a zone of red freckles; almost equally blunt at both ends. It is not a little remarkable that Sir William Milner and Mr. Selby should differ so diametrically on the colour of this bird's egg, Mr. Selby saying it is white. Mr. Hewitson figures the eggs of both species with the zone of minute red speckles described by Sir William Milner.

STORM PETREL, *Thalassidroma pelagica.*

Situation. On the ground among stones on small islands, or rather uninhabited rocks, in the Scilly Islands and St. Kilda, in the Orkney Islands, and on the coast of Ireland. It was found by Mr. Hewitson breeding at Foula, Papa and Oxna: this excellent ornithologist says that on the 31st of May these birds had not arrived on the breeding-ground, or, to use the phrase of the fishermen, had not yet "come up from the sea." Some eggs were deposited as late as the 30th of June. The female lays but one, which is oval and white, measuring 1 inch 1 line in length by 10 lines in breadth. During the day the old birds remain within their holes, and, when most other birds are gone to rest, issue forth in great numbers, spreading themselves far over the surface of the sea.

Materials. "The nests, though of much the same materials as the ground on which they were placed, seemed to have been made with care: they were composed of small bits of stalks of plants, and pieces of hard dry earth."—*Mr. Hewitson* (ii. 519).

Egg, 1. White, the size of a blackbird's. See the remark on colour in the preceding species.

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